Access DB# 98714

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SEARCH REQUEST FORM

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Requester's Full Name: Jeffrey E. Russel Examiner #: 62785 Date: 7-14-2003

Art Unit: 1654 Phone Number 308-3975 Serial Number: 10/081,505

Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): PAPER DISK E-MAIL

CM1-11013/CM1-9807

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Conjugate For Mediating Cell, Compartment, Or Membrane Specific Transport of.

Inventors (please provide full names): K. Braun, P. Peschke, E. Friedrich, R. Pipkorn, W. Waldeck, J. Debus

Earliest Priority Filing Date: 7-2-2002

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search SEQ ID NO:1 (RQIKIWFQNRRMKWKK) in STN, in the U.S. patent appl. sequence database (pending, published & issued), and in Geneseq/Subsport/PIR.

Thank you.

JER

SEQ 1 - NATL V

Bioconjug

fusion protein

membranes

Bioconjugate didn't provide anything additional to conjugates.

Maria Smith

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=> fil hcaplu
FILE 'HCAPLUS' ENTERED AT 14:54:04 ON 15 JUL 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 15 Jul 2003  VOL 139 ISS 3
FILE LAST UPDATED: 14 Jul 2003  (20030714/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> d stat que
L1  (       548)SEA FILE=REGISTRY ABB=ON  RQIKIWFQNRRMKWKK/SQSP
L3      1767781 SEA FILE=REGISTRY ABB=ON  SQL<=20
L4           82 SEA FILE=REGISTRY ABB=ON  L1 AND L3
L5          154 SEA FILE=HCAPLUS ABB=ON  L4
L7            0 SEA FILE=HCAPLUS ABB=ON  L5 AND BIOCONJUG?


=> d stat que 16
L1  (       548)SEA FILE=REGISTRY ABB=ON  RQIKIWFQNRRMKWKK/SQSP
L3      1767781 SEA FILE=REGISTRY ABB=ON  SQL<=20
L4           82 SEA FILE=REGISTRY ABB=ON  L1 AND L3
L5          154 SEA FILE=HCAPLUS ABB=ON  L4
L6           51 SEA FILE=HCAPLUS ABB=ON  L5 AND (CONJUG? OR CELL(W)MEDIAT?)


=> d ibib abs hitrn 16 1-51

L6   ANSWER 1 OF 51  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2003:454163  HCAPLUS
DOCUMENT NUMBER:          139:30785
TITLE:                    Thermally activated conjugates of clasp
                          peptide nucleic acids with transport proteins for
                          therapeutic control of gene expression
INVENTOR(S):              Braun, Klaus; Braun, Isabell; Corban-Wilhelm, Heike;
                          Debus, Juergen; Jenne, Juergen; Rastert, Ralf;
                          Pipkorn, Ruediger; Simiantonakis, Ioannis; Waldeck,
                          Waldemar
PATENT ASSIGNEE(S):       Deutsches Krebsforschungszentrum Stiftung Des
                          Oeffentlichen Rechts, Germany
SOURCE:                   PCT Int. Appl., 27 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
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PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003047631	A2	20030612	WO 2002-DE4356	20021127

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10158331	A1	20030612	DE 2001-10158331	20011128

PRIORITY APPLN. INFO.: DE 2001-10158331 A 20011128

AB The invention concerns **conjugates** of peptide-nucleic acids for inhibition of gene expression in the treatment of disease. The peptide nucleic acids are **conjugated** with a moiety that will stimulate cell uptake, such as a penetratin, another that targets the **conjugate** to the tumor cell, and a nuclear localization signal. The peptide nucleic acid is in an inactive clasp configuration, such as a triple helix, that denatures at an elevated temp., e.g. during a fever or by therapeutic hyperthermia, to denature a complex that may release an RNA or an antisense sequence. The peptide components may be connected by peptide bonds or disulfide bridges. Thermal regulation of expression of a gene for green fluorescent protein in animal cell culture is demonstrated. The clasp had a denaturation temp. of 44.degree. and a sharp induction of fluorescence could be seen when transformed cells were cultured at temps. >43.degree..

IT **188842-14-0D**, Penetratin, derivs., **conjugates**
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(thermally activated **conjugates** of clasp peptide nucleic acids with transport proteins for therapeutic control of gene expression)

L6 ANSWER 2 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:376547 HCAPLUS
DOCUMENT NUMBER: 138:396192
TITLE: Peptide nucleic acid **conjugates** inhibiting expression of the bcr-abl gene for treatment of chronic myeloid leukemia
INVENTOR(S): Braun, Klaus; Waldeck, Waldemar; Pipkorn, Ruediger; Braun, Isabell; Debus, Juergen
PATENT ASSIGNEE(S): Deutsches Krebsforschungszentrum Stiftung Des Oeffentlichen Rechts, Germany
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003039438	A2	20030515	WO 2002-DE4154	20021108

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10154827 A1 20030528 DE 2001-10154827 20011108

PRIORITY APPLN. INFO.: DE 2001-10154827 A 20011108

AB The invention concerns **conjugates** of peptide-nucleic acids inhibiting the expression of the fusion bcr/abl gene characteristic of chronic myeloid leukemia (CML), and suited to the treatment of CML. The peptide nucleic acids are **conjugated** with a moiety that will stimulate cell uptake, such as a penetratin, another that targets the **conjugate** to the tumor cell, and a nuclear localization signal. The peptide components may be connected by peptide bonds or disulfide bridges. The peptide nucleic acid is designed to straddle the junction of the bcr and abl genes. Use of a **conjugate** of a penetratin, a nuclear localization signal and a peptide nucleic acid to inhibit proliferation of K562 cells in vitro is demonstrated.

IT **188842-14-0D**, Penetratin, derivs., **conjugates**
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptide nucleic acid **conjugates** inhibiting expression of bcr-abl gene for treatment of chronic myeloid leukemia)

L6 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:320058 HCAPLUS
DOCUMENT NUMBER: 138:332863
TITLE: Suppression of a specific gene using a complex of a targeting oligonucleotide and a protein affecting gene expression
INVENTOR(S): Hart, Stephen; Ali, Simak; Pufong, Boris Tumi; Porter, Andrew Christopher George; Buluwela, Laki; Vainikka, Satu; Jenkinson, John David; Kanda, Patrick
PATENT ASSIGNEE(S): Gene Expression Technologies Limited, UK
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003033701	A1	20030424	WO 2002-GB4633	20021011

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

GB 2382581 A1 20030604 GB 2002-23605 20021011
PRIORITY APPLN. INFO.: GB 2001-24391 A 20011011

AB Methods of suppressing expression of a specific gene independently of the endogenous regulatory mechanisms are described. They use oligonucleotides to target proteins affecting gene expression to a specific site in the genome. The protein is preferably one that represses gene expression and may be a portion of a histone deacetylase or DNA methylase or polypeptide capable of recruiting a histone deacetylase or DNA methylase. The oligonucleotide may be an analog, such as a peptide nucleic acid and the protein moiety may include a peptidomimetic and sequences that promote uptake and internalization of the complex. The repressor may be a portion of a histone deacetylase or DNA methylase or polypeptide capable of recruiting a histone deacetylase or DNA methylase.

IT **188842-14-0D, conjugates** with repressors
RL: BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid sequence, internalization peptide; suppression of specific gene using complex of targeting oligonucleotide and protein affecting gene expression)

IT **188842-14-0D,** Penetratin, fusion proteins, **conjugates** with oligonucleotides
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(suppression of specific gene using complex of targeting oligonucleotide and protein affecting gene expression)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:77534 HCAPLUS
DOCUMENT NUMBER: 138:142467
TITLE: Compositions and methods for enhancing drug delivery across and into ocular tissues
INVENTOR(S): Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P. Leo; Sista, Lalitha V. S.; Kirschberg, Thorsten A.
PATENT ASSIGNEE(S): Cellgate, Inc., A Delaware Corporation, USA
SOURCE: U.S. Pat. Appl. Publ., 64 pp., Cont.-in-part of U.S. Ser. No. 792,480.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003022831	A1	20030130	US 2002-83960	20020225
US 2002127198	A1	20020912	US 2001-792480	20010223

PRIORITY APPLN. INFO.: US 1999-150510P P 19990824
US 2000-648400 A2 20000824
US 2001-792480 A2 20010223

OTHER SOURCE(S): MARPAT 138:142467

AB This invention provides compns. and methods for enhancing delivery of drugs and other agents across epithelial tissues, including into and across ocular tissues and the like. The compns. and methods are also useful for delivery across endothelial tissues, including the blood brain barrier. The compns. and methods employ a delivery-enhancing transporter

that has sufficient guanidino or amidino side chain moieties to enhance delivery of a compd. **conjugated** to the reagent across one or more layers of the tissue, compared to the non-**conjugated** compd. The delivery-enhancing polymers include, for example, polyarginine mols. that are preferably between about 6 and 25 residues in length.

IT **491875-77-5**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (delivery-enhancing transporters for drug delivery across and into ocular tissues)

L6 ANSWER 5 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:76966 HCAPLUS
DOCUMENT NUMBER: 138:142441
TITLE: Enzymatic nucleic acid peptide **conjugates**
INVENTOR(S): Beigelman, Leonid; Azhayev, Alex; Azhayeva, Elena
PATENT ASSIGNEE(S): Ribozyme Pharmacuticals, Inc., USA
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003008628	A2	20030130	WO 2002-US23324	20020722

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-306995P P 20010720
OTHER SOURCE(S): MARPAT 138:142441
AB This invention features **conjugates**, compns., methods of synthesis, and applications thereof, including galactose, galactosamine, N-acetyl galactosamine, PEG, phospholipid, and human serum albumin (HSA) derived **conjugates** of nucleosides, nucleotides, non-nucleosides, and nucleic acids including enzymic nucleic acids, DNAzymes, allozymes, antisense, dsRNA, siRNA, triplex oligonucleotides, 2,5-A chimeras, decoys and aptamers.

IT **188842-14-0**
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(enzymic nucleic acid peptide **conjugates**)

L6 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:57945 HCAPLUS
DOCUMENT NUMBER: 138:142457
TITLE: PNA **conjugate** for the treatment of diseases associated with HIV
INVENTOR(S): Braun, Klaus; Waldeck, Waldemar; Pipkorn, Ruediger; Braun, Isabell; Debus, Juergen
PATENT ASSIGNEE(S): Deutsches Krebsforschungszentrum, Germany

SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003006065	A2	20030123	WO 2002-DE2564	20020712

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10133307	A1	20030206	DE 2001-10133307	20010712

PRIORITY APPLN. INFO.: DE 2001-10133307 A 20010712

AB The invention relates to peptide nucleic acid (PNA) **conjugates** which are suitable for the treatment of diseases assocd. with HIV, the peptide nucleic acid (PNA) inhibiting the gene expression of HIV. The **conjugates** comprise the following constituents: (a) a transport mediator for the cell membrane, (b) an address protein or peptide for importing into the cell nucleus, and (c) a peptide nucleic acid (PNA) which is to be transported, which can be hybridized with an HIV gene, and which inhibits the expression of the HIV gene.

IT **188842-14-0D**, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PNA **conjugate** for the treatment of diseases assocd. with HIV)

L6 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:905731 HCAPLUS
DOCUMENT NUMBER: 138:14152
TITLE: Preparation of enzymic ribonucleic acid peptide **conjugates** as antitumor and antiviral agents and compositions for cellular delivery
INVENTOR(S): Beigelman, Leonid; Matulic-Adamic, Jasenka; Vargeese, Chandra; Karpeisky, Alexander; Blatt, Lawrence; Shaffer, Christopher
PATENT ASSIGNEE(S): Ribozyme Pharmaceuticals, Inc, USA
SOURCE: PCT Int. Appl., 220 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002094185	A2	20021128	WO 2002-US15876	20020520

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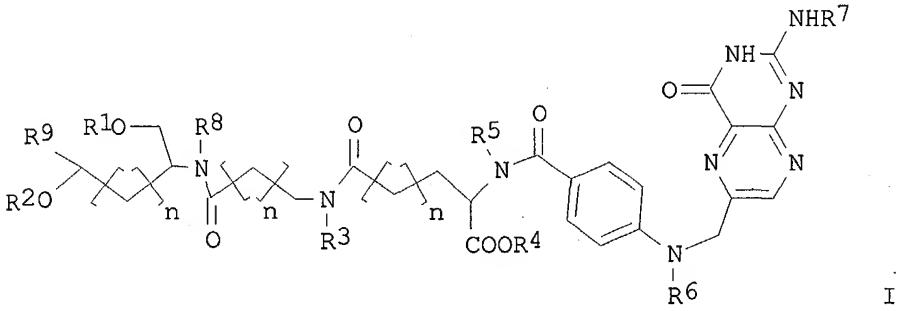
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003104985	A1	20030605	US 2002-151116	20020517
US 2003130186	A1	20030710	US 2002-201394	20020722

PRIORITY APPLN. INFO.:

US 2001-292217P	P	20010518
US 2001-306883P	P	20010720
US 2001-311865P	P	20010813
US 2002-362016P	P	20020306

GI



I

AB This invention features peptide nucleotide **conjugates** I wherein each R1-R8 are independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, or a protecting group, each "n" is independently an integer from 0 to about 200, R9 is a straight or branched chain alkyl, substituted alkyl, aryl, or substituted aryl, and R2 is a phosphorus contg. group, nucleoside, nucleotide, small mol., nucleic acid, or a solid support comprising a linker., degradable linkers, compns., methods of synthesis, and applications thereof, including folate, galactose, galactosamine, N-acetyl galactosamine, PEG, phospholipid, peptide and human serum albumin (HAS) derived **conjugates** of biol. active compds., including antibodies, antivirals, chemotherapeutics, peptides, proteins, hormones nucleosides, nucleotides, non-nucleosides, and nucleic acids including enzymic nucleic acids, DNAzymes, allozymes, antisense, dsRNA, siRNA, triplex oligonucleotides, 2,5-A chimeras, decoys and aptamers. Thus, 1-O-(4-monomethoxytrityl)-N-(12'-hydroxydodecanoyl-2-acetamido-3,4,6-tri-O-acetyl-2-deoxy-3-D-galactopyranose)-D-threoninol 3-O-(2-cyanoethyl,N,N-diisopropylphosphorami-dite) was prepd. and incorporated into RNA. A method of treating a cancer patient, comprising contacting cells of patient wherein said cancer is breast cancer, lung cancer, colorectal cancer, brain cancer, esophageal cancer, stomach cancer, bladder cancer, pancreatic cancer, cervical cancer, head and neck cancer, ovarian cancer, melanoma, lymphoma, glioma, or multidrug resistant cancers and/or viral infections including HIV, HBV, HCV, CMV, RSV, HSV, poliovirus, influenza, rhinovirus, west nile virus, Ebola virus, foot and mouth virus, and papilloma.

IT **188842-14-0**
RL: PRP (Properties)
(unclaimed sequence; prepn. of enzymic RNA peptide **conjugates** as antitumor and antiviral agents and compns. for cellular delivery)

L6 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:814884 HCAPLUS
DOCUMENT NUMBER: 137:279471
TITLE: Process for preparing peptide-derivatized oligomeric compounds
INVENTOR(S): Manoharan, Muthiah; Guzaev, Andrei P.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 45 pp., Cont.-in-part of U.S. Ser. No. 658,517.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002156235	A1	20021024	US 2001-949474	20010907
US 6559279	B1	20030506	US 2000-658517	20000908

PRIORITY APPLN. INFO.: US 2000-658517 A2 20000908
AB The invention is directed to methods for synthesizing peptides covalently linked to oligomeric compds., e.g., oligonucleotides. The synthesis is performed without the problems of aggregation assocd. with electrostatic interactions. Thus, solid-bound oligonucleotide (TG)2ctat2c(tg)2A2T2 assembled on 2-[4-[(4,4'-dimethoxytrityl)oxy]butyryldithio]acetyl-derivatized CPG was treated with cystamine and 2,2'-dipyridyl disulfide to give the pyridyldithio-activated oligonucleotide, which reacted with Antennapedia-SH peptide to form the **conjugate** (ESMS: 9230.2).
IT **376600-63-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of peptide-derivatized oligomeric compds.)
IT **404932-03-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of peptide-derivatized oligomeric compds.)
IT **404562-88-5 404562-89-6**
RL: PRP (Properties)
(unclaimed protein sequence; process for prepg. peptide-derivatized oligomeric compds.)

L6 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:813960 HCAPLUS
DOCUMENT NUMBER: 137:333160
TITLE: Novel chimeric C3 ADP-ribosyl transferase-like Rho antagonists and their therapeutic uses for neuroprotection and axon regeneration
INVENTOR(S): McKerracher, Lisa
PATENT ASSIGNEE(S): Bioaxone Therapeutique Inc., Can.
SOURCE: PCT Int. Appl., 188 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083179	A2	20021024	WO 2002-CA480	20020408
WO 2002083179	A3	20030515		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CH, CN, CO,

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HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003103957 A1 20030605 US 2002-118079 20020409
PRIORITY APPLN. INFO.: CA 2001-2342970 A 20010412
CA 2001-2362004 A 20011113
CA 2002-2367636 A 20020115

AB The invention provides sequences of novel Rho antagonists that are fusion proteins comprising C3 ADP-ribosyl transferase or C3-like proteins. The Rho family GTPases regulates axon growth and regeneration. Inactivation of Rho with C3, a toxin from Clostridium botulinum, can stimulate regeneration and sprouting of injured axons. The present invention provides novel chimeric C3-like Rho antagonists. These new antagonists are a significant improvement over C3 compds. because they are 3-4 orders of magnitude more potent to stimulate axon growth on inhibitory substrates than recombinant C3. The invention further provides evidence that these compds. promote repair when applied to the injured mammalian central nervous system.

IT **473828-49-8**
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(amino acid sequence; novel chimeric C3 ADP-ribosyl transferase-like Rho antagonists and their therapeutic uses for neuroprotection and axon regeneration)

L6 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:794218 HCAPLUS
DOCUMENT NUMBER: 137:329413
TITLE: Delivery vehicles and methods for using the same
INVENTOR(S): Craig, Roger
PATENT ASSIGNEE(S): UK
SOURCE: U.S. Pat. Appl. Publ., 43 pp., Cont.-in-part of U.S. Ser. No. 748,789.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002151004	A1	20021017	US 2001-785802	20010216
US 2001008758	A1	20010719	US 2000-748063	20001222
US 2001053549	A1	20011220	US 2000-748789	20001222
US 2002009706	A1	20020124	US 2001-779188	20010208
WO 2002007752	A2	20020131	WO 2001-GB3327	20010724

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
WO 2002057436 A2 20020725 WO 2002-GB169 20020116
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 2003050591 A1 20030313 US 2002-279374 20021024
PRIORITY APPLN. INFO.: GB 2000-2848 A 20000724
GB 2000-3056 A 20000809
US 2000-748063 A2 20001222
US 2000-748789 A2 20001222
GB 1999-17416 A 19990723
US 1999-146556P P 19990730
GB 2000-2856 A 20000208
US 2000-181796P P 20000211
WO 2000-GB2848 W 20000724
WO 2000-GB3056 W 20000809
GB 2001-1469 A 20010119
US 2001-264808P P 20010129
WO 2001-GB417 W 20010201
US 2001-779186 A1 20010208
US 2001-785802 A 20010216
GB 2001-5631 A 20010307
US 2001-279803P P 20010329
WO 2001-GB3327 W 20010724

AB The invention provides delivery vehicles for the intracellular delivery of a therapeutic agent to a target site. The delivery vehicles comprise cells loaded with an agent **conjugated** to an MTS (membrane translocation sequence). Selective release of the agent-MTS **conjugate** at a target site, facilitates the uptake of the agent by cells at the target site. Methods for producing the cells and using the cells are also provided, as are kits to facilitate performing the methods.

IT **188842-14-0 393511-85-8**
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(drug delivery vehicles and methods for using the same)

IT **188842-14-0D**, Penetratin, phosphorothioate oligonucleotide **conjugates**
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(drug delivery vehicles and methods for using the same)

L6 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:736375 HCAPLUS
DOCUMENT NUMBER: 137:261875
TITLE: Molecular vaccine linking antigen with an immunogenicity-potentiating polypeptide delivered as replication defective alphavirus replicons from stable packaging cells
INVENTOR(S): Wu, Tzyy-Choou; Hung, Chien-Fu
PATENT ASSIGNEE(S): Johns Hopkins University, USA

SOURCE: PCT Int. Appl., 93 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002074920	A2	20020926	WO 2002-US8033	20020318

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-276854P P 20010316

AB Superior mol. vaccines comprise nucleic acids in the form of PCL-generated replication-defective alphavirus replicons, preferably Sindbis virus, that encode a fusion polypeptide that includes an antigenic peptide or polypeptide against which an immune response is desired. Fused to the antigenic peptide is at least a second polypeptide that is an immunogenicity-potentiating polypeptide acting by any of a no. of mechanisms to promote immunogenicity of the antigen. Examples include intercellular spreading proteins, in particular a herpes virus protein VP22 or a homolog or functional deriv. thereof. Other examples are proteins that stimulate MHC class I processing of the antigen, target the antigen to APCs promote development and growth of immature DCs or stimulate DC antigen presenting activity. The nucleic acid can encode any antigenic epitope of interest, preferably an epitope that is processed and presented by MHC class I proteins. Antigens of pathogenic organisms and cells such as tumor cells are preferred. Vaccines comprising HPV-16 E7 oncoprotein are exemplified. Also disclosed are methods of using the vaccines to induce heightened T **cell mediated** immunity, in particular by cytotoxic T lymphocytes, leading to protection from or treatment of a tumor.

IT **463347-86-6**
RL: PRP (Properties)
(unclaimed sequence; mol. vaccine linking antigen with an immunogenicity-potentiating polypeptide delivered as replication defective alphavirus replicons from stable packaging cells)

L6 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:696457 HCAPLUS
DOCUMENT NUMBER: 137:237728
TITLE: Peptide **conjugates** for enhancing drug delivery across and into epithelial tissues
INVENTOR(S): Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P. Leo; Sista, Lalitha V. S.; Kirschberg, Thorsten A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 80 pp., Cont.-in-part of U.S. Ser. No. 648,400.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002127198	A1	20020912	US 2001-792480	20010223
WO 2002067917	A1	20020906	WO 2002-US5804	20020225
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
WO 2002069930	A1	20020912	WO 2002-US5829	20020225
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003022831	A1	20030130	US 2002-83960	20020225
US 2003083256	A1	20030501	US 2002-209421	20020730

PRIORITY APPLN. INFO.: US 1999-150510P P 19990824
US 2000-648400 A2 20000824
US 2001-792480 A 20010223

OTHER SOURCE(S): MARPAT 137:237728

AB This invention provides compns. and methods for enhancing delivery of drugs and other agents across epithelial tissues, including the skin, gastrointestinal tract, pulmonary epithelium, ocular tissues and the like. The compns. and methods are also useful for delivery across endothelial tissues, including the blood brain barrier. The compns. and methods employ a delivery enhancing transporter that has sufficient guanidino or amidino side-chain moieties to enhance delivery of a compd. **conjugated** to the reagent across one or more layers of the tissue, compared to the non-**conjugated** compd. The delivery-enhancing polymers include, for example, poly-arginine mols. that are preferably between about 6 and 25 residues in length. E.g., biotinylated polymers of D-arginine were prepd. and their penetration into the skin of nude mice studied.

IT **188842-14-0P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(peptide **conjugates** for enhancing drug delivery across and into epithelial tissues)

L6 ANSWER 13 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:678354 HCAPLUS
DOCUMENT NUMBER: 138:184524
TITLE: Cellular uptake of antisense oligonucleotides after complexing or **conjugation** with cell-penetrating model peptides
AUTHOR(S): Oehlke, J.; Birth, P.; Klauschenz, E.; Wiesner, B.; Beyermann, M.; Oksche, A.; Bienert, M.

CORPORATE SOURCE: Institute of Molecular Pharmacology, Berlin, D-13125, Germany
SOURCE: European Journal of Biochemistry (2002), 269(16), 4025-4032
CODEN: EJBCAI; ISSN: 0014-2956
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The uptake by mammalian cells of phosphorothioate oligonucleotides was compared with that of their resp. complexes or **conjugates** with cationic, cell-penetrating model peptides of varying helix-forming propensity and amphipathicity. An HPLC-based protocol for the synthesis and purifn. of disulfide bridged **conjugates** in the 10-100 nmol range was developed. Confocal laser scanning microscopy (CLSM) in combination with gel-capillary electrophoresis and laser induced fluorescence detection (GCE-LIF) revealed cytoplasmic and nuclear accumulation in all cases. The uptake differences between naked oligonucleotides and their resp. peptide complexes or **conjugates** were generally confined to one order of magnitude. No significant influence of the structural properties of the peptide components upon cellular uptake was found. Our results question the common belief that the increased biol. activity of oligonucleotides after derivatization with membrane permeable peptides may be primarily due to improved membrane translocation.

IT **497932-98-6**
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(cellular uptake of antisense oligonucleotides after complexing or **conjugation** with cell-penetrating model peptides)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:675821 HCAPLUS
DOCUMENT NUMBER: 137:222033
TITLE: Compositions and methods for enhancing drug delivery across and into ocular tissues
INVENTOR(S): Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P. Leo; Sista, Lalitha Vs; Kirschberg, Thorsten A.
PATENT ASSIGNEE(S): Cellgate, Inc., USA
SOURCE: PCT Int. Appl., 119 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002067917	A1	20020906	WO 2002-US5804	20020225

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002127198 A1 20020912 US 2001-792480 20010223
PRIORITY APPLN. INFO.: US 2001-792480 A 20010223
US 1999-150510P P 19990824
US 2000-648400 A2 20000824
OTHER SOURCE(S): MARPAT 137:222033
AB Compns. and methods for enhancing delivery of drugs, diagnostic and other agents across epithelial tissues, including into and across ocular tissues and blood-brain barrier are provided. The compns. and methods employ a delivery enhancing transporter that has sufficient guanidino or amidino side chain moieties to enhance delivery of a compd. **conjugated** to the reagent across one or more layers of the tissue, compared to the non-**conjugated** compd. The delivery-enhancing polymers include, for example, poly-arginine mols. that are preferably between about 6 and 25 residues in length. For example, a series of structural characteristics including sequence length, amino acid compn., and chirality that influence the ability of Tat49-57 to enter cells is identified. These characteristics provided the blueprint for the design of a series of novel peptoids, of which 17 members were synthesized and assayed for cellular uptake. This research established that the peptide backbone and hydrogen bonding along that backbone are not required for cellular uptake, that the guanidino head group is superior to other cationic subunits, and most significantly, that an extension of the alkyl chain between the backbone and the head group provides superior transporters. In addn. to better uptake performance, these novel peptoids offer several advantages over Tat49-57 including cost-effectiveness, ease of synthesis of analogs, and protease stability. These features along with their significant water soly. (>100 mg/mL) indicate that these novel peptoids could serve as effective transporters for the mol. delivery of drugs, drug candidates, and other agents into cells.
IT **188842-14-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(drug **conjugates** with peptide transporter contg. amidino or guanidino moieties for enhanced delivery across epithelium)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:634799 HCAPLUS
DOCUMENT NUMBER: 138:350146
TITLE: A quantitative validation of fluorophore-labelled cell-permeable peptide **conjugates**: fluorophore and cargo dependence of import
AUTHOR(S): Fischer, Rainer; Waizenegger, Thomas; Kohler, Karsten; Brock, Roland
CORPORATE SOURCE: Institute for Cell Biology, Center for Bioinformatics Tubingen, Group of Genomics and Proteomics, University of Tubingen, Tubingen, 72076, Germany
SOURCE: Biochimica et Biophysica Acta (2002), 1564(2), 365-374
CODEN: BBACAQ; ISSN: 0006-3002
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cell-permeable peptides were evaluated for a quant. controlled import of small mols. The dependence of the import efficiency on the fluorophore, on the position of the fluorophore as well as on the nature of the cargo were addressed. Cellular uptake was quantitated by flow cytometry and fluorescence correlation microscopy (FCM). Fluorophores with different spectral characteristics, covering the whole visible spectral range, were

selected in order to enable the simultaneous detection of several cell-permeable peptide constructs. The transcytosis sequences were based either on the sequence of the Antennapedia homeodomain protein (AntpHD)-derived penetratin peptide or the Kaposi fibroblast growth factor (FGF)-derived membrane translocating sequence (MTS)-peptide. In general, the AntpHD-derived peptides had a three- to fourfold higher import efficiency than the MTS-derived peptides. In spite of the very different physicochem. characteristics of the fluorophores, the import efficiencies for analogs labeled at different positions within the sequence of the import peptides showed a strong pos. correlation. However, even for peptide cargos of very similar size, pronounced differences in import efficiency were obsd. The use of cell-permeable peptide/cargo constructs for intracellular analyses of structure-function relationships therefore requires the detn. of the intracellular concns. for each construct individually.

IT **188842-14-0**, Penetratin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(AntpHD peptide; fluorophore and cargo dependence of import of fluorophore-labeled cell-permeable peptide **conjugates**)

IT **188842-14-0D**, fluorescein deriv.
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(fluorophore and cargo dependence of import of fluorophore-labeled cell-permeable peptide **conjugates**)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:615447 HCAPLUS
DOCUMENT NUMBER: 137:190698
TITLE: Enhanced oral and transcompartmental delivery of therapeutic or diagnostic agents
INVENTOR(S): Paranjp, Pankaj; Stein, Stanley; Leibowitz, Michael J.; Sinko, Patrick J.; Minko, Tamara; Williams, Gregory C.; Zhang, Goubao; Pooyan, Shahrair; Park, Seong Hee; Qiu, Bo; Ramanathan, Srinivasan
PATENT ASSIGNEE(S): University of Medicine and Dentistry of New Jersey, USA; Rutgers, the State of University of New Jersey
SOURCE: PCT Int. Appl., 142 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062396	A2	20020815	WO 2002-US3819	20020208
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003091640	A1	20030515	US 2002-72657	20020208

PRIORITY APPLN. INFO.: US 2001-267396P P 20010208
OTHER SOURCE(S): MARPAT 137:190698
AB The invention is directed to pharmaceutical compns. and methods for delivery of a therapeutic or diagnostic agent from one body compartment to one or more other body compartment by administering one of the following **conjugates**: a polymer having multiple functional groups at least one of which is covalently bound to a therapeutic or diagnostic agent, and at least one cell uptake promoter covalently bound to the therapeutic or diagnostic agent; or a polymer and at lest one cell uptake promoter bound thereto; the polymer further comprising multiple functional groups at least one of which is covalently bound a therapeutic or diagnostic agent.
IT **188842-14-0**, Penetratin
RL: BSU (Biological study, unclassified); BIOL (Biological study) (enhanced oral and transcompartmental delivery of therapeutic or diagnostic agents)

L6 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:593622 HCAPLUS
DOCUMENT NUMBER: 138:217307
TITLE: Epoxysuccinyl peptide-derived cathepsin B inhibitors: modulating membrane permeability by **conjugation** with the C-terminal heptapeptide segment of penetratin
AUTHOR(S): Schaschke, Norbert; Deluca, Dominga; Assfalg-Machleidt, Irmgard; Hohneke, Clara; Sommerhoff, Christian P.; Machleidt, Werner
CORPORATE SOURCE: Max-Planck-Institut fur Biochemie, Martinsried, D-82152, Germany
SOURCE: Biological Chemistry (2002), 383(5), 849-852
CODEN: BICHF3; ISSN: 1431-6730
PUBLISHER: Walter de Gruyter GmbH & Co. KG
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Besides its physiol. role in lysosomal protein breakdown, extralysosomal cathepsin B has recently been implicated in apoptotic cell death. Highly specific irreversible cathepsin B inhibitors that are readily cell-permeant should be useful tools to elucidate the effects of cathepsin B in the cytosol. We have covalently functionalized the poorly cell-permeant epoxysuccinyl-based cathepsin B inhibitor [R-Gly-Gly-Leu-(2S,3S)-tEps-Leu-Pro-OH; R=OMe] with the C-terminal heptapeptide segment of penetratin (R=.epsilon.Ahx-Arg-Arg-Nle-Lys-Trp-Lys-Lys-NH2). The high inhibitory potency and selectivity for cathepsin B vs. cathepsin L of the parent compd. was not affected by the **conjugation** with the penetratin heptapeptide. The **conjugate** was shown to efficiently penetrate into MCF-7 cells as an active inhibitor, thereby circumventing an intracellular activation step that is required by other inhibitors, such as the prodrug-like epoxysuccinyl peptides E64d and CA074Me.
IT **188842-14-0**, Penetratin
RL: BSU (Biological study, unclassified); BIOL (Biological study) (membrane permeability of epoxysuccinyl peptide-derived cathepsin B inhibitor **conjugated** with the C-terminal heptapeptide segment of penetratin)
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:555638 HCAPLUS
DOCUMENT NUMBER: 137:120671

TITLE: Use of erythrocytes for manufacture of foreign proteins for delivery to non-transgenic animals
INVENTOR(S): McHale, Anthony Patrick; Craig, Roger Kingdon
PATENT ASSIGNEE(S): Gendel Limited, UK
SOURCE: PCT Int. Appl., 125 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002057436	A2	20020725	WO 2002-GB169	20020116
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002151004	A1	20021017	US 2001-785802	20010216
WO 2002007752	A2	20020131	WO 2001-GB3327	20010724
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:

GB 2001-1469	A	20010119
US 2001-264808P	P	20010129
WO 2001-GB417	W	20010201
US 2001-785802	A	20010216
GB 2001-5631	A	20010307
US 2001-279803P	P	20010329
WO 2001-GB3327	W	20010724
GB 2000-2848	A	20000724
WO 2000-GB2848	W	20000724
GB 2000-3056	A	20000809
WO 2000-GB3056	W	20000809
US 2000-748063	A2	20001222
US 2000-748789	A2	20001222

AB A method of manufg. foreign proteins in vertebrates and incorporating them into red blood cells for purifn. or delivery to non-transgenic animals is described. The animal carries an erythroblast-specific expression construct that results in inclusion of the protein into erythrocytes. The protein may be purified from the red blood cells by first loading them with an agent that renders them sensitive to an energy source and then disrupting with the energy. If the erythrocytes are stripped of blood group antigens, they may be used to deliver the protein to recipient animal. The protein may then be recovered from the lysate. We also disclose a reporter gene assay for detg. delivery of an agent to a target site. The gene for the protein may be expressed from the locus control

region of the .beta.-globin gene.

IT **188842-14-0 393511-85-8**
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(amino acid sequence, in membrane transport of proteins; use of erythrocytes for manuf. of foreign proteins for delivery to non-transgenic animals)

L6 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:469270 HCAPLUS
DOCUMENT NUMBER: 138:44612
TITLE: Cell-dependent differential cellular uptake of PNA, peptides, and PNA-peptide **conjugates**
AUTHOR(S): Koppelhus, Uffe; Awasthi, Satish Kumar; Zachar, Vladimir; Holst, Henrik Uffe; Ebbesen, Peter; Nielsen, Peter Eigil
CORPORATE SOURCE: Center for Biomolecular Recognition, Department of Medical Biochemistry & Genetics, Biochemistry Laboratory B, The Panum Institute, University of Copenhagen, Copenhagen N, DK-2200, Den.
SOURCE: Antisense & Nucleic Acid Drug Development (2002), 12(2), 51-63
CODEN: ANADF5; ISSN: 1087-2906
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Peptide nucleic acid (PNA) oligomers were **conjugated** to cell-penetrating peptides: pAnt, a 17-residue fragment of the Drosophila protein Antennapedia, and pTat, a 14-amino acid fragment of HIV protein Tat. A 14-mer PNA was attached to the peptide by disulfide linkage or by maleimide coupling. The uptake of (directly or indirectly, via biotin) fluorescein-labeled peptides, PNAs, or PNA-peptide **conjugates** was studied by fluorescence microscopy, confocal laser scanning microscopy, and fluorometry in five cell types. In SK-BR-3, HeLa, and IMR-90 cells, the PNA-peptide **conjugates** and a Tlys backbone-modified PNA were readily taken up (2 .mu.M). The PNA was almost exclusively confined to vesicular compartments in the cytosol. However, the IMR-90 cells also showed a weak diffuse staining of the cytoplasm. In the U937 cells, the authors obsd. a very weak and exclusively vesicular staining with the PNA-peptide **conjugates** and the Tlys-modified PNA. No evident uptake of the unmodified PNA was seen. In H9 cells, both peptides and the PNA-peptide **conjugates** quickly assocd. with the membrane, followed by a weak intracellular staining. A cytotoxic effect resulting in artificial staining of the cells was obsd. with fluoresceinated peptides and PNA-peptide **conjugates** at concns. above 5-10 .mu.M, depending on cell type and incubation time. The authors conclude that uptake of PNAs in many cell types can be achieved either by **conjugating** to certain peptides or simply by charging the PNA backbone using lysine PNA units. The uptake is time, temp., and concn. dependent and mainly endocytic. The results also show that proper controls for cytotoxicity should always be carried out to avoid misinterpretation of visual data.

IT **254893-86-2**
RL: ADV (Adverse effect, including toxicity); PKT (Pharmacokinetics); BIOL (Biological study)
(cell-dependent differential cellular uptake of peptide nucleic acids (PNA) and peptides and PNA-peptide **conjugates** in relation to cytotoxicity)

REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:353296 HCAPLUS
DOCUMENT NUMBER: 136:363821
TITLE: Methods and compositions for inhibiting growth factor receptor-bound protein (Grb7) and uses thereof in cancer therapy
INVENTOR(S): Krag, David N.; Pero, Stephanie C.; Oligino, Lyn
PATENT ASSIGNEE(S): University of Vermont, USA
SOURCE: PCT Int. Appl., 186 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002036142	A2	20020510	WO 2001-US47400	20011105
WO 2002036142	A3	20030227		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
AU 2002020265	A5	20020515	AU 2002-20265	20011105
US 2003105000	A1	20030605	US 2001-13815	20011105

PRIORITY APPLN. INFO.: US 2000-245755P P 20001103
WO 2001-US47400 W 20011105

AB The invention provides sequences of Grb7-binding peptides (G7BP) identified using peptide phage display techniques. G7BP specifically binds to the SH2 domain of Grb7. Specifically disclosed are Grb7 antagonists that bind selectively to Grb7 and interfere with the ability of Grb7 to bind to its native ligands. These compns. are useful in the prevention and treatment of disorders characterized by abnormal interaction of Grb7 with its native ligands (e.g., ErbB2).

IT **188842-14-0**
RL: PRP (Properties)
(unclaimed sequence; methods and compns. for inhibiting growth factor receptor-bound protein (Grb7) and uses thereof in cancer therapy)

L6 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:350591 HCAPLUS
DOCUMENT NUMBER: 138:126878
TITLE: Antisense delivery into mitochondria using peptide
AUTHOR(S): Okuda, T.; Niidome, T.; Aoyagi, H.
CORPORATE SOURCE: Department of Applied Chemistry, Nagasaki University, Nagasaki, 852-8521, Japan
SOURCE: Proceedings - 28th International Symposium on Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 2, 1237-1238. Controlled Release Society: Minneapolis, Minn.
CODEN: 69CNY8
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Mitochondrion has a unique genomic DNA and plays important roles in cells such as energy metab., regulation of apoptosis. However, antisense delivery system into mitochondria, which makes us convenient to understand

mitochondrial genomic functions, was not established yet. To construct a novel antisense delivery system into mitochondria, the authors prepd. a **conjugate** consisting of membrane permeable peptide and mitochondrial signal sequence. As a result, the mitochondrial signal sequence was specifically delivered to mitochondria in the cell.

IT **489445-39-8 489445-40-1**
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antisense delivery into mitochondria using peptide)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:256517 HCAPLUS
DOCUMENT NUMBER: 136:289901
TITLE: In vivo determination of specific mRNA levels using labeled sequence-specific mRNA-binding proteins
INVENTOR(S): Busa, William Brian
PATENT ASSIGNEE(S): Cellomics, Inc., USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002027031	A2	20020404	WO 2001-US30438	20010928
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001094872	A5	20020408	AU 2001-94872	20010928
US 2003096243	A1	20030522	US 2001-965876	20010928
PRIORITY APPLN. INFO.:			US 2000-236407P P	20000928
			WO 2001-US30438 W	20010928

AB The present invention provides reagents and methods for mRNA quantification in intact cells. Cells expressing the gene of interest are modified to label the gene with a sequence bound by a sequence-specific RNA binding protein. The RNA is bound by the protein and if the protein is labeled with a suitable reporter dye, levels and distribution of the mRNA can be monitored fluorometrically. The protein may also carry a nuclear export signal to prevent it accumulating in the nucleus and preventing export of the bound mRNA. Dye pairs that may be used in FRET anal. are claimed.

IT **188842-14-0**
RL: ARU (Analytical role, unclassified); PRP (Properties); ANST (Analytical study)
(amino acid sequence, RNA-binding motif; in vivo detn. of specific mRNA levels using labeled sequence-specific mRNA-binding proteins)

L6 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:251336 HCAPLUS

DOCUMENT NUMBER: 137:279440
TITLE: A practical approach to the synthesis of hairpin polyamide-peptide **conjugates** through the use of a safety-catch linker
AUTHOR(S): Fattori, Daniela; Kinzel, Olaf; Ingallinella, Paolo; Bianchi, Elisabetta; Pessi, Antonello
CORPORATE SOURCE: Istituto di Ricerche di Biologia Molecolare P. Angeletti (IRBM), Rome, Pomezia, 00040, Italy
SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(8), 1143-1147
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Hairpin polyamides are high-affinity, sequence selective DNA binders. The use of a safety-catch linker for the solid phase synthesis of hairpin polyamides allows for easy prepn. of derivs. ready for chemoselective ligation with unprotected peptides. Examples of ligations reported include thioether bond formation and thioester-mediated amide bond formation (native chem. ligation).

IT **465545-91-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of hairpin polyamide-peptide **conjugates** using safety-catch linker)

IT **466680-95-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of hairpin polyamide-peptide **conjugates** using safety-catch linker)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:185320 HCAPLUS
DOCUMENT NUMBER: 136:242932
TITLE: Identification of peptide ligands for specific cell types by phage display for use in drug targeting and control of biological processes
INVENTOR(S): Arap, Wadih; Pasqualini, Renata
PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA
SOURCE: PCT Int. Appl., 311 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020769	A1	20020314	WO 2001-US27692	20010907
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001088843	A5	20020322	AU 2001-88843	20010907

EP 1322755 A1 20030702 EP 2001-968603 20010907
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
WO 2003022991 A2 20030320 WO 2002-US27836 20020830
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 2000-231266P P 20000908
US 2001-765101 A 20010117
WO 2001-US27692 W 20010907

AB The present invention concerns methods and compns. for in vivo and in vitro targeting. A large no. of targeting peptides directed towards human organs, tissues or cell types are disclosed. The peptides are of use for targeted delivery of therapeutic agents, including but not limited to gene therapy vectors. A novel class of gene therapy vectors is disclosed. Certain of the disclosed peptides have therapeutic use for inhibiting angiogenesis, inhibiting tumor growth, inducing apoptosis, inhibiting pregnancy or inducing wt. loss. Methods of identifying novel targeting peptides in humans, as well as identifying endogenous receptor-ligand pairs are disclosed. Methods of identifying novel infectious agents that are causal for human disease states are also disclosed. A novel mechanism for inducing apoptosis is further disclosed.

IT **188842-14-0D**, Penetratin, **conjugates** with apoptosis inducing peptides
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(induction of apoptosis by; identification of peptide ligands for specific cell types by phage display for use in drug targeting and control of biol. processes)

IT **188842-14-0**
RL: PRP (Properties)
(unclaimed sequence; identification of peptide ligands for specific cell types by phage display for use in drug targeting and control of biol. processes)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:185319 HCAPLUS
DOCUMENT NUMBER: 136:226793
TITLE: Use of caveolin-1 scaffolding domain peptides to inhibit eNOS nitric oxide synthesis in the treatment of inflammation and cancer
INVENTOR(S): Sessa, William C.
PATENT ASSIGNEE(S): Yale University, USA
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020768	A2	20020314	WO 2001-US42069	20010910
WO 2002020768	A3	20030227		
WO 2002020768	C2	20030508		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002077283	A1	20020620	US 2000-731023	20001207
AU 2001093255	A5	20020322	AU 2001-93255	20010910
EP 1317487	A2	20030611	EP 2001-973702	20010910
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:

US 2000-231327P	P	20000908
US 2000-731023	A	20001207
WO 2001-US42069	W	20010910

AB The present invention relates to caveolin scaffolding domain-contg. peptides fused to the antennapedia homeodomain useful for treating various diseases such as inflammation and cancer. Furthermore, the present invention relates to compns. and methods of treatment which utilize peptides comprising at least one caveolin scaffolding domain. More specifically, methods for blocking the interaction of the caveolin-binding protein eNOS (endothelial nitric oxide synthase) to down regulate the activity of eNOS by administering caveolin fusion peptides are provided. Thus, eNOS activities such as acetylcholine-induced vasodilation, prostacyclin prodn. and nitric oxide prodn. may be modulated using these methods. Hence, inflammation and tumor cell angiogenesis and proliferation are inhibited. The said fusion peptides comprise at least one caveolin scaffolding domain and at least one membrane translocation domain. Specifically, the membrane translocation domain comprises the third helix of the antennapedia homeodomain. Also included are methods for identifying agents that interact with eNOS or modulate its activity comprising exposing cells that express eNOS to the said fusion peptides and detg. the eNOS activity.

IT **188842-14-0**
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Drosophila antennapedia homeodomain 16-amino acid peptide; use of caveolin-1 scaffolding domain peptides to inhibit eNOS nitric oxide synthesis in treatment of inflammation and cancer)

L6 ANSWER 26 OF 51 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:	2002:185140 HCAPLUS
DOCUMENT NUMBER:	136:263470
TITLE:	Process for preparing peptide-derivatized oligomeric compounds
INVENTOR(S):	Manoharan, Muthiah; Guzaev, Andrei P.
PATENT ASSIGNEE(S):	Isis Pharmaceuticals, Inc., USA
SOURCE:	PCT Int. Appl., 124 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020544	A1	20020314	WO 2001-US28083	20010907
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 6559279	B1	20030506	US 2000-658517	20000908
AU 2001087137	A5	20020322	AU 2001-87137	20010907

PRIORITY APPLN. INFO.: US 2000-658517 A 20000908
WO 2001-US28083 W 20010907

OTHER SOURCE(S): MARPAT 136:263470

AB The invention is directed to methods for synthesizing peptides covalently linked to oligomeric compds., e.g., oligonucleotides. The synthesis is performed without the problems of aggregation assocd. with electrostatic interactions. Thus, solid-bound oligonucleotide (TG)2ctat2c(tg)2A2T2 assembled on 2-[4-[(4,4'-dimethoxytrityl)oxy]butyryldithio]acetyl-derivatized CPG was treated with cystamine and 2,2'-dipyridyl disulfide to give the pyridyldithio-activated oligonucleotide, which reacted with Antennapaedia-SH peptide to form the **conjugate** (ESMS: 9230.2).

IT **376600-63-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of peptide-derivatized oligomeric compds.)

IT **404932-03-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of peptide-derivatized oligomeric compds.)

IT **404562-88-5 404562-89-6**
RL: PRP (Properties)
(unclaimed protein sequence; process for prepg. peptide-derivatized oligomeric compds.)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 27 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:172074 HCAPLUS
DOCUMENT NUMBER: 136:228585
TITLE: Membrane penetrating peptides derived from nuclear localization sequence and uses as intracellular delivery devices for compound of interest
INVENTOR(S): Guo, Yong; Morse, Clarence C.; Yao, Zhengbin; Keesler, George A., Jr.
PATENT ASSIGNEE(S): Aventis Pharmaceuticals Inc, USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002018572 A2 20020307 WO 2001-US26421 20010823
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2001085249 A5 20020313 AU 2001-85249 20010823
NO 2003000856 A 20030424 NO 2003-856 20030224
PRIORITY APPLN. INFO.: US 2000-227647P P 20000825
GB 2001-3110 A 20010207
WO 2001-US26421 W 20010823

AB The present invention is directed to membrane penetrating peptides (MPP, also known as protein transduction domain, "PTD") useful as in vivo, ex vivo and in vitro intracellular delivery devices for compd. of interest. The membrane penetrating peptides is produced by recombinant technol., chem. synthesis or degrdn. of a precursor protein. More particularly, the invention involves identification of membrane penetrating peptides which may be used as protein carriers for delivery of a compd. of interest to cells, to methods of delivering a compd. of interest attached to membrane penetrating peptides to cells. The invention finds that the arginine 7 residue plays a crit. role in the cell penetrating ability of the human period 1 protein-MPP. The invention also identify several genes encoding MPP, including thyroid hormone receptor .alpha.-1, homeobox protein HME1, nucleoplasmin X, GCN-4, cAMP dependent transcription factor, HNF3, HEN1/NSLC1, HEN2/NSLC2, and proto-oncogene protein ABL-1. The invention demonstrates that PTD sequence can be found within or overlapping with NLSs.

IT **188842-14-0 402938-17-4**
RL: PRP (Properties)
(unclaimed sequence; membrane penetrating peptides derived from nuclear localization sequence and uses as intracellular delivery devices for compd. of interest)

L6 ANSWER 28 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:89850 HCAPLUS
DOCUMENT NUMBER: 136:156414
TITLE: Polypeptide delivery systems by using erythrocytes
INVENTOR(S): Craig, Roger
PATENT ASSIGNEE(S): Gendel Limited, UK
SOURCE: PCT Int. Appl., 135 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002007752	A2	20020131	WO 2001-GB3327	20010724

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

WO 2001007011 A1 20010201 WO 2000-GB2848 20000724

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

WO 2001058431 A1 20010816 WO 2000-GB3056 20000809

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002151004 A1 20021017 US 2001-785802 20010216

WO 2002057436 A2 20020725 WO 2002-GB169 20020116

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

WO 2000-GB2848	W	20000724
WO 2000-GB3056	W	20000809
WO 2001-GB417	W	20010201
US 2001-785802	A	20010216
GB 1999-17416	A	19990723
US 1999-146556P	P	19990730
GB 2000-2856	A	20000208
US 2000-181796P	P	20000211
GB 2000-2848	A	20000724
GB 2000-3056	A	20000809
US 2000-748063	A2	20001222
US 2000-748789	A2	20001222
GB 2001-1469	A	20010119
US 2001-264808P	P	20010129
GB 2001-5631	A	20010307
US 2001-279803P	P	20010329
WO 2001-GB3327	W	20010724

AB We describe a method of prepg. a red blood cell vehicle suitable for delivering an agent to a target site in a vertebrate, the method comprising the steps of: (a) providing a red blood cell; and (b) loading the red blood cell with an agent-MTS (membrane translocation sequence) **conjugate**. Uptake of the peptides, e.g., penetratin, HIV-TAT and VP22, by erythrocytes from a no. of sources including human, pig, rabbit and mouse was examd. Peptides comprising membrane translocation sequences

may be auto-loaded into electrosensitized erythrocytes and uptake of peptide is dependant on the peptide concn.

IT **188842-14-0 188842-14-0D**, Penetratin, oligonucleotide **conjugates 393511-85-8**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polypeptide delivery systems by using erythrocytes)

L6 ANSWER 29 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:2517 HCAPLUS
DOCUMENT NUMBER: 137:237523
TITLE: Molecular transporters for peptides: delivery of a cardioprotective .epsilon.PKC agonist peptide into cells and intact ischemic heart using a transport system, R7
AUTHOR(S): Chen, Leon; Wright, Lee R.; Chen, Che-Hong; Oliver, Steven F.; Wender, Paul A.; Mochly-Rosen, Daria
CORPORATE SOURCE: Department of Molecular Pharmacology, Standford University School of Medicine, Standford, CA, 94305-5174, USA
SOURCE: Chemistry & Biology (2001), 8(12), 1123-1129
CODEN: CBOLE2; ISSN: 1074-5521
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Background: Recently, we reported a novel oligoguanidine transporter system, polyarginine (R7), which, when **conjugated** to spectroscopic probes (e.g., fluorescein) and drugs (e.g., cyclosporin A), results in highly water-sol. **conjugates** that rapidly enter cells and tissues. We report herein the prepn. of the first R7 peptide **conjugates** and a study of their cellular and organ uptake and functional activity. The octapeptide .psi..epsilon.RACK was selected for this study as it is known to exhibit selective .epsilon. protein kinase C isoenzyme agonist activity and to reduce ischemia-induced damage in cardiomyocytes. However, .psi..epsilon.RACK is not cell-permeable. Results: Here we show that an R7-.psi..epsilon.RACK **conjugate** readily enters cardiomyocytes, significantly outperforming .psi..epsilon.RACK **conjugates** of the transporters derived from HIV Tat and from Antennapedia. Moreover, R7-.psi..epsilon.RACK **conjugate** reduced ischemic damage when delivered into intact hearts either prior to or after the ischemic insult. Conclusions: Our data suggest that R7 converts a peptide lead into a potential therapeutic agent for the ischemic heart.

IT **459146-74-8**
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of cardioprotective .epsilon.PKC agonist peptide into cells and intact ischemic heart using polyarginine transport system)

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 30 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:748124 HCAPLUS
DOCUMENT NUMBER: 135:315571
TITLE: Methods of detecting a cell
INVENTOR(S): Tse, Eric; Rabbitts, Terence
PATENT ASSIGNEE(S): Medical Research Council, UK
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001075453	A2	20011011	WO 2001-GB1540	20010404
WO 2001075453	A3	20020606		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1269199	A2	20030102	EP 2001-917315	20010404
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003124629	A1	20030703	US 2002-265002	20021004

PRIORITY APPLN. INFO.: GB 2000-8254 A 20000404
GB 2000-8256 A 20000404
WO 2001-GB1540 W 20010404

AB We describe a method of inducing a cell to generate a detectable signal. The method comprises the steps of providing a cell comprising an entity and providing a first reporter and a second reporter, in which a stable interaction of the first reporter with the second reporter leads to generation of a detectable signal. The first reporter and the second reporter are allowed to bind to the entity, such that binding of the reporters to the entity leads to stable interaction of the first reporter with the second reporter and generation of a signal. The signal is preferably the activation of a cell killing mechanism. An epitope of HIV-1 integrase was fused at the N-terminus of .beta.-galactosidase. This construct was coexpressed in CHO cells with a single-chain antibody Fv binding to the epitope (scFvIN33)-caspase 3 fusion protein. Interaction of the antibody and antigen caused caspase-mediated apoptosis.

IT **188842-14-0**
RL: PRP (Properties)
(unclaimed sequence; methods of detecting a cell)

L6 ANSWER 31 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:693349 HCAPLUS
DOCUMENT NUMBER: 135:268162
TITLE: Sequences of peptides that selectively bind to expanded polyglutamine repeat domains of pathologic proteins and therapeutic uses thereof
INVENTOR(S): Strittmatter, Warren J.; Burke, James R.; Nagai, Yoshitaka
PATENT ASSIGNEE(S): Duke University, USA
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001068678	A2	20010920	WO 2001-US8222	20010314
WO 2001068678	A3	20020516		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002009752	A1	20020124	US 2001-780070	20010209

PRIORITY APPLN. INFO.: US 2000-189781P P 20000316
OTHER SOURCE(S): MARPAT 135:268162

AB The invention discloses sequences of peptides that selectively bind to expanded polyglutamine repeat domains of proteins with pathol.-length polyglutamine and uses in treating neurodegenerative diseases. Such peptides are characterized in that they bind to a first polyglutamine peptide consisting of 60 glutamine residues under conditions in which they do not bind to a second polyglutamine peptide consisting of 20 glutamine residues. The invention also provides the expression constructs of these peptides and methods of treating cells expressing proteins with expanded polyglutamine regions. The invention also includes methods of detecting proteins with expanded polyglutamine domain from samples and screening drugs to treat diseases related to proteins with expanded polyglutamine repeats.

IT **188842-14-0**
RL: PRP (Properties)
(unclaimed sequence; sequences of peptides that selectively bind to expanded polyglutamine repeat domains of pathol. proteins and therapeutic uses thereof)

L6 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:675105 HCAPLUS
DOCUMENT NUMBER: 136:20235
TITLE: Efficient synthesis of oligonucleotide-peptide **conjugates** on large scale
AUTHOR(S): Doronina, Svetlana O.; Guzaev, Andrei P.; Manoharan, Muthiah
CORPORATE SOURCE: Department of Medicinal Chemistry, Isis Pharmaceuticals, Inc., Carlsbad, CA, 92008, USA
SOURCE: Nucleosides, Nucleotides & Nucleic Acids (2001), 20(4-7), 1007-1010
CODEN: NNNAFY; ISSN: 1525-7770
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The **conjugation** of oligonucleotide phosphorothioates with antennapedia peptide was studied in detail to allow efficient prepn. of the **conjugates** on up to 15 .mu.mol scale. Under optimized conditions, the use of oligonucleotides and the peptide in an equimol. ratio gave the desired **conjugates** in more than 60% isolated yield.

IT **376600-63-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of oligonucleotide phosphorothioate-antennapedia peptide **conjugates**)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:397065 HCAPLUS
DOCUMENT NUMBER: 135:15060
TITLE: Multimers of nuclear localization signals or of protein transduction domains and their use for transferring molecules into cells
INVENTOR(S): Rosenecker, Joseph; Ritter, Wolfgang; Rudolph, Carsten Martin; Plank, Christian
PATENT ASSIGNEE(S): Germany
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001038547	A2	20010531	WO 2000-EP11690	20001123
WO 2001038547	A3	20020228		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1235914	A2	20020904	EP 2000-988753	20001123
JP 2003514564	T2	20030422	JP 2001-539889	20001123
US 2003125242	A1	20030703	US 2002-156570	20020524

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

PRIORITY APPLN. INFO.: EP 1999-123423 A 19991124
WO 2000-EP11690 W 20001123

AB Described are polypeptides comprising at least two peptide monomers comprising a nuclear localization sequence or a protein transduction domain and their use for transferring mols. into eukaryotic cells, as well as pharmaceutical compns. comprising the described polypeptides and processes for transferring mols. into eukaryotic cells. Thus, transfection with (PKKKRKVG)4/DNA complexes was almost as efficient as that with dendrimer/DNA complexes. PKKKRKV is the nuclear localization signal of SV40 virus large T antigen.

IT **188842-14-0**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(multimers of nuclear localization signals or of protein transduction domains and their use for transferring mols. into cells)

L6 ANSWER 34 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:338494 HCAPLUS
DOCUMENT NUMBER: 134:371759
TITLE: An activated-thiol polymer for drug delivery
INVENTOR(S): Ruffner, Duane; Wang, Laixin
PATENT ASSIGNEE(S): University of Utah Research Foundation, USA
SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032623	A1	20010510	WO 2000-US29849	20001029

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-429056 A 19991029

AB The synthesis and characterization of an acrylamide copolymer for use as a carrier for the delivery of water sol. drugs is disclosed. The polymer contains active-sulfhydryl groups for coupling of ligands through a disulfide linkage. The polymer can also be prepd. contg. pendant amino groups in addn. to the active-sulfhydryl moiety. This allows the use of different chemistries to **conjugate** a variety of ligands to the polymer. N-(2-hydroxypropyl)methacrylamide copolymer (I)was reacted with pAntp-SH peptide followed by the reaction with a disulfide modified oligonucleotide to obtain an oligonucleotide-peptide-polymer **conjugate**. HeLa cell uptake of I-oligonucleotide **conjugates** was studied.

IT **209323-98-8DP, conjugates** with oligonucleotides and polymers
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(activated-thiol polymer for drug delivery)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:211242 HCAPLUS
DOCUMENT NUMBER: 134:305445
TITLE: Vesicle-associated proteins and transmitter release from sympathetic ganglionic boutons
AUTHOR(S): Blair, Duncan H.; Robson, Scott; King, Glenn; Bennett, Max R.
CORPORATE SOURCE: Neurobiology Lab., Univ. of Sydney, Sydney, NSW 2006, Australia
SOURCE: NeuroReport (2001), 12(3), 607-610
CODEN: NERPEZ; ISSN: 0959-4965
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A method is reported for introducing peptides derived from SNARE proteins that control exocytosis of vesicles. at boutons formed by sympathetic ganglion cells in tissue culture. These peptides were coupled to the DNA binding domain of the Drosophila transcription factor antennapedia, called penetratin. This facilitated the passage of peptides across the bouton membrane. FMI-43 was used to monitor the exocytosis of transmitter from depolarized boutons after their exposure to the penetratin-peptide

. sequences IETRHNEIIKLETSIRELHD of syntaxin and KGFLSSLFGGSSK of .alpha.-SNAP both of which blocked secretion, whereas the peptide sequences SELDDRADALQAGASQFETSAAKLKRK of synaptobrevin did not. This report introduces a readily applicable method for detg. the effect of different peptide sequences of vesicle-assocd. proteins on secretion at vertebrate boutons and presents an account of the effects of a selection of such peptides on exocytosis.

IT **188842-14-0**, Penetratin
RL: ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(**conjugate** with SNARE and .alpha.-SNAP derived peptides; screening method for role of vesicle-assocd. proteins in transmitter release from sympathetic ganglionic boutons)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:186402 HCAPLUS
DOCUMENT NUMBER: 135:40598
TITLE: Doxorubicin-peptide **conjugates** overcome multidrug resistance
AUTHOR(S): Mazel, Martine; Clair, Philippe; Rousselle, Christophe; Vidal, Pierre; Scherrmann, Jean-Michel; Mathieu, Daniele; Temsamani, Jamal
CORPORATE SOURCE: Synt:em, Parc Scientifique Georges Besse, Nimes, 30000, Fr.
SOURCE: Anti-Cancer Drugs (2001), 12(2), 107-116
CODEN: ANTDEV; ISSN: 0959-4973
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A well-known mechanism leading to the emergence of multidrug-resistant tumor cells is the overexpression of P-glycoprotein (P-gp), which is capable of lowering intracellular drug concns. To overcome this problem, the authors tested the capability of two peptide vectors that are able to cross cellular membranes to deliver doxorubicin in P-gp-expressing cells. The antitumor effect of peptide-**conjugated** doxorubicin was tested in human erythroleukemic (K562/ADR) resistant cells. The **conjugate** showed potent dose-dependent inhibition of cell growth against K562/ADR cells as compared with doxorubicin alone. Doxorubicin exhibited IC50 concns. of 65 .mu.M in the resistant cells, whereas vectorized doxorubicin was more effective with IC50 concns. of 3 .mu.M. After treatment of the resistant cells with verapamil, the intracellular levels of doxorubicin were markedly increased and consequent cytotoxicity was improved. In contrast, treatment of resistant cells with verapamil did not cause any further enhancement in the cell uptake nor in the cytotoxic effect of the **conjugated** doxorubicin, indicating that the **conjugate** bypasses the P-gp. Finally, the authors show by the in situ brain perfusion method in P-gp-deficient and competent mice that vectorized doxorubicin bypasses the P-gp present at the luminal site of the blood-brain barrier. These results indicate that vectorization of doxorubicin with peptide vectors is effective in overcoming multidrug resistance.

IT **344466-28-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(doxorubicin-peptide **conjugates** overcome multidrug resistance)

REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 37 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:45049 HCAPLUS
DOCUMENT NUMBER: 134:97534
TITLE: **Conjugates** for the delivery of active substances into cells, cell compartments and membranes
INVENTOR(S): Braun, Klaus; Friedrich, Eckart; Waldeck, Waldemar; Peschke, Peter; Pipkorn, Ruediger; Debus, Juergen
PATENT ASSIGNEE(S): Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen Rechts, Germany
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19933492	A1	20010118	DE 1999-19933492	19990716
WO 2001005432	A2	20010125	WO 2000-DE2346	20000714
WO 2001005432	A3	20011206		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1196196	A2	20020417	EP 2000-954335	20000714
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003504417	T2	20030204	JP 2001-510520	20000714

PRIORITY APPLN. INFO.: DE 1999-19933492 A 19990716
WO 2000-DE2346 W 20000714

AB The invention concerns the prodn. and application of **conjugates** for the delivery of active substance into cells, cell compartments and membranes that contain fragments of a penetrating protein, a target-specific localization protein and the active substance. Cell-penetrating proteins are penetratin, transportan or their derivs. Sequences of the target-specific localization peptides are given for endoplasmic reticulum, mitochondria, nucleus, peroxisomes and cell membrane. Active substances are diagnostic agents or drugs. Spacers can be included into the **conjugate** between the active substance and the target-specific peptide. Synthesis methods include the Merrifield synthesis and coupling of the non-peptide component. Thus penetratin, a nuclear localization sequence and a spacer sequence peptide-**conjugate** was synthesized; after purifn., it was coupled with rhodamine 110. The **conjugate** was incubated with AT-1 and DU-145 cells; the penetration of the rhodamine 110 contg. **conjugate** into the nucleus was detected by fluoroscence microscopy.

IT **188842-14-0DP**, Penetratin, fusion with localization peptide, **conjugate** with active substance
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); PROC

. (Process)
(**conjugates** for delivery of active substances into cells, cell compartments and membranes)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:911294 HCAPLUS
DOCUMENT NUMBER: 134:66134
TITLE: Eukaryotic initiation factor 4 (eIF4)-derived peptides and peptidomimetics for therapeutic use
INVENTOR(S): Proud, Christopher Gregory; Herbert, Terrence Patrick; Lane, David Philip; Fahraeus, Robin
PATENT ASSIGNEE(S): University Court of the University of Dundee, UK
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000078803	A2	20001228	WO 2000-GB2414	20000621
WO 2000078803	A3	20010726		
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1189936	A2	20020327	EP 2000-940589	20000621
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2003502440	T2	20030121	JP 2001-505561	20000621

PRIORITY APPLN. INFO.: GB 1999-14480 A 19990621
WO 2000-GB2414 W 20000621
OTHER SOURCE(S): MARPAT 134:66134
AB The invention relates to use of eIF4E binding agents, more particularly peptides or peptidomimetics, in therapy, e.g. induction of programmed cell death. Preferred peptides comprise the sequence YxxxxLO (x = any amino acid; O = Leu, Met, Phe). The compds. of the invention may ve used e.g. to induce tumor cell death.
IT **188842-14-0D**, Penetratin, eIF4G fragment **conjugates**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(eukaryotic initiation factor 4 (eIF4)-derived peptides and peptidomimetics for therapeutic use)
IT **188842-14-0**
RL: PRP (Properties)
(unclaimed sequence; eukaryotic initiation factor 4 (eIF4)-derived peptides and peptidomimetics for therapeutic use)

L6 ANSWER 39 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:885755 HCAPLUS
DOCUMENT NUMBER: 135:59861
TITLE: Antigenicity and immunogenicity of an intracellular delivery system of major histocompatibility complex class I epitopes that bypasses proteasome processing
AUTHOR(S): Tirosh, Boaz; Fridkin, Mati; Tzehoval, Eather; Vadai, Ezra; Lemonnier, Francois A.; Eisenbach, Lea

CORPORATE SOURCE: Departments of Immunology and Organic Chemistry, The Weizmann Institute of Science, Rehovot, Israel
SOURCE: Journal of Immunotherapy (2000), 23(6), 622-630
CODEN: JOIMF8; ISSN: 1053-8550
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The development of a cell-free synthetic vaccine to induce an effective cytotoxic T lymphocyte response is an important challenge in T-**cell-mediated** immunity. Because std. vaccinations with nominal epitopes were found to be only partially effective in vivo, the authors suggest an alternative strategy: the delivery of epitopes directly to the cell cytosol in a proteasome bypass mechanism of processing. Two model peptides, the presentation level on the cell surface of which can be directly assessed, were **conjugated** via a cross-linker to an internalization peptide derived from an antennapedia homeobox protein. The linker was designed to undergo spontaneous hydrolysis, after which the epitope is subsequently released. The **conjugates** were shown to enter RMA and P815 cells, where the epitopes were released mainly in cytosol and endogenously loaded on the major histocompatibility complex class I mols. to be presented on the cell surface. Concomitant inhibition of proteasome activity by MG132 significantly increased the presentation level of both model peptides, indicating proteasome-independent processing. This phenomenon was exploited to enhance the immunogenicity of the **conjugates**. **Conjugates** were emulsified with MG132 in incomplete Freund's adjuvant and injected into mouse footpads. Anal. of the draining lymph nodes indicated an increase in the percentage of both CD4+ and CD8+ lymphocytes. In vitro cytolytic assays implied significant, albeit moderate, priming only when the proteasome inhibitor was administered with the **conjugate**. This approach may be useful for the development of efficient synthetic cell-free vaccines.

IT **188842-14-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(intracellular delivery system of MHC class I epitopes that bypasses proteasome processing)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 40 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:836290 HCAPLUS
DOCUMENT NUMBER: 134:116219
TITLE: Stepwise solid-phase synthesis of peptide-oligonucleotide phosphorothioate **conjugates** employing Fmoc peptide chemistry
AUTHOR(S): Antopolsky, Maxim; Azhayev, Alex
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of Kuopio, Kuopio, FIN-70211, Finland
SOURCE: Tetrahedron Letters (2000), 41(47), 9113-9117
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:116219

AB A straightforward stepwise method for the prepn. of peptide-oligonucleotide phosphorothioate **conjugates**, was developed, based on the highly efficient Fmoc peptide solid phase synthesis, followed by oligonucleotide phosphorothioate chain assembly. The three

. **conjugates** synthesized contained 15- or 17-mer oligonucleotide phosphorothioates and 10- or 16-mer peptides, incorporating two or three arginine residues.

IT **321164-80-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of peptide-oligonucleotide phosphorothioate **conjugates** using solid-phase techniques)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 41 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:719962 HCAPLUS
DOCUMENT NUMBER: 134:52731
TITLE: The Antennapedia peptide penetratin translocates across lipid bilayers - the first direct observation
AUTHOR(S): Thoren, P. E. G.; Persson, D.; Karlsson, M.; Norden, B.
CORPORATE SOURCE: Dep. Phys. Chem., Chalmers Univ. Technol., Goeteborg, Swed.
SOURCE: FEBS Letters (2000), 482(3), 265-268
CODEN: FEBLAL; ISSN: 0014-5793
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The potential use of polypeptides and oligonucleotides for therapeutic purposes has been questioned because of their inherently poor cellular uptake. However, the 16-mer oligopeptide penetratin, derived from the homeodomain of Antennapedia, has been reported to enter cells readily via a non-endocytotic and receptor- and transporter-independent pathway, even when **conjugated** to large hydrophilic mols. We here present the first study where penetratin is shown to traverse a pure lipid bilayer. The results support the idea that the uptake mechanism involves only the interaction of the peptide with the membrane lipids. Furthermore, we conclude that the translocation does not involve pore formation.

IT **188842-14-0**, Penetratin
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(demonstration that Antennapedia peptide penetratin translocates across lipid bilayers)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:646038 HCAPLUS
DOCUMENT NUMBER: 133:232873
TITLE: Compounds and methods for stimulating gene expression and cellular differentiation
INVENTOR(S): Blaschuk, Orest W.; Gour, Barbara J.
PATENT ASSIGNEE(S): McGill University, Can.
SOURCE: PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000053632	A1	20000914	WO 2000-CA222	20000307

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-265107 A 19990309

AB Modulating agents for inhibiting an interaction between .alpha.-catenin and .beta.-catenin are provided. The modulating agents comprise one or more of (a) a .beta.-catenin HAV motif; (b) a peptide analog or mimetic of a .beta.-catenin HAV motif; or (c) an antibody or antigen-binding fragment thereof that specifically binds to a .beta.-catenin HAV motif. Methods for using such modulating agents for inhibiting cadherin-mediated cell adhesion in a variety of contexts are also provided.

IT **188842-14-0D**, modulating moiety-linked derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compds. and methods for stimulating gene expression and cellular differentiation)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 43 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:579584 HCAPLUS
DOCUMENT NUMBER: 133:292464
TITLE: New DNA modification strategies involving oxime formation
AUTHOR(S): Cebon, Ben; Lambert, John N.; Leung, Donmienne; Mackie, Hugh; McCluskey, Karen L.; Nguyen, Xuan; Tassone, Claudia
CORPORATE SOURCE: School of Chemistry, The University of Melbourne, Vic., 3010, Australia
SOURCE: Australian Journal of Chemistry (2000), 53(4), 333-339
CODEN: AJCHAS; ISSN: 0004-9425
PUBLISHER: CSIRO Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:292464

AB A new method for the formation of covalently linked DNA **conjugates** is described. The method involves installation of a 5'-hydroxylamine nucleophile onto synthetic DNA and condensation with a suitable electrophilic carbonyl compd. to form an oxime linkage. Various protection strategies for the hydroxylamine group and their merits are discussed and the formation of an oligonucleotide-peptide **conjugate** is described.

IT **300575-23-9P**
RL: NUU (Other use, unclassified); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(DNA modification strategies involving oxime formation)

IT **300575-24-0D**, resin **conjugate** **300575-25-1D**, resin **conjugate**
RL: RCT (Reactant); RACT (Reactant or reagent)
(DNA modification strategies involving oxime formation)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 44 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:351544 HCAPLUS
DOCUMENT NUMBER: 133:9081
TITLE: Modified and truncated penetratin derivatives as membrane translocation carriers for drug transport
INVENTOR(S): Fischer, M. Peter; Zhelev, Nikolai
PATENT ASSIGNEE(S): Cyclacel Limited, UK
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000029427	A2	20000525	WO 1999-GB3750	19991111
WO 2000029427	A3	20001005		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
GB 2346616	A1	20000816	GB 1999-26719	19991111
EP 1135410	A2	20010926	EP 1999-954212	19991111
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002530059	T2	20020917	JP 2000-582414	19991111
US 2002098236	A1	20020725	US 2001-854204	20010511

PRIORITY APPLN. INFO.:

GB 1998-25000	A	19981113
GB 1998-25001	A	19981113
GB 1999-2522	A	19990204
GB 1999-2525	A	19990204
GB 1999-14578	A	19990622
WO 1999-GB3750	W	19991111
US 1999-438460	A3	19991112

AB The invention relates to modified and truncated forms of the membrane transport vector penetratin, a peptide comprising residues 45-58 of the Antennapedia homeodomain protein. Such truncated forms include 7-mer peptides that may in themselves include further variation. Such smaller or truncated forms of penetratin are advantageous in that they are more acceptable to the pharmaceutical industry as delivery carrier moieties, by virtue of the carrier-cargo **conjugate** having an advantageous immunogenicity, soly., and clearance, and in some cases advantageous efficacy as compared to using a **conjugate** comprised of full length penetratin. Carrier moieties are synthetically linked to a cargo moiety selected from p21WAF-derived peptides, p16-derived peptides or the drugs roscovitine, taxol, or a podophyllotoxin. The truncated penetratin-podophyllotoxin **conjugate**, for example, is more effective in terms of anti-proliferative activity on tumor cells while exhibiting lower generalized toxicity.

IT **264882-32-8P 264882-70-4P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(modified and truncated penetratin derivs. as membrane translocation carriers for drug transport)

IT **188842-14-0**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modified and truncated penetratin derivs. as membrane translocation carriers for drug transport)

L6 ANSWER 45 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:215551 HCAPLUS
DOCUMENT NUMBER: 130:247829
TITLE: Introduction of peptides and oligonucleotides into neurons as homeodomain fusions
INVENTOR(S): Joliot, Alain; Prochiantz, Alain
PATENT ASSIGNEE(S): Centre National de la Recherche Scientifique (CNRS), Fr.
SOURCE: U.S., 16 pp., Cont.-in-part of U.S. Ser. No. 828,995, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5888762	A	19990330	US 1994-238518	19940505
FR 2662698	A1	19911206	FR 1990-6912	19900605
FR 2662698	B1	19950324		

PRIORITY APPLN. INFO.: FR 1990-6912 A 19900605
US 1992-828995 B2 19920327

AB The invention relates to a method for introducing a macromol. comprising at least the helix 3 of a homeobox peptide into a living cell. Thus, the 60-amino acid homeodomain of Drosophila Antennapedia protein (pAntp) was taken up by neurons and most of the protein was localized to the nucleus. A peptide consisting of residues 43-58 of pAntp was the shortest peptide which displayed this property. Tyr-36,Ala-50-pAntp and Pro-40,Pro-41-pAntp were also taken up, but, unlike the wild-type pAntp, did not stimulate neurite growth. 43-58-PAntp disulfide linked to a peptide inhibitor of protein kinase C or to an antisense oligonucleotide complementary to a sequence including the amyloid precursor protein (APP) gene ATG initiation codon were prepd. Neurons incubated with these constructs displayed reduced protein kinase C activity or reduced APP levels.

IT **188842-14-0D, conjugates**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(introduction of peptides and oligonucleotides into neurons as homeodomain fusions)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 46 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:96382 HCAPLUS
DOCUMENT NUMBER: 130:163975
TITLE: **Conjugates** of transporter peptides and nucleic acid analogs for improved delivery of antisense constructs
INVENTOR(S): Langel, Ulo; Bartfai, Tamas; Pooga, Margus; Valkna,

Andres; Saar, Kulliki; Hallbrink, Mattias
PATENT ASSIGNEE(S): The Perkin-Elmer Corporation, USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9905302	A1	19990204	WO 1998-US14761	19980716
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9884080	A1	19990216	AU 1998-84080	19980716
AU 741546	B2	20011206		
US 6025140	A	20000215	US 1998-116294	19980716
EP 998577	A1	20000510	EP 1998-934592	19980716
R: CH, DE, FR, GB, IT, LI, SE				
JP 2002511885	T2	20020416	JP 1999-509910	19980716

PRIORITY APPLN. INFO.: US 1997-53678P P 19970724
WO 1998-US14761 W 19980716
OTHER SOURCE(S): MARPAT 130:163975

AB Constructs of peptides and nucleic acid analogs **conjugated** together for transport across a lipid membrane and for delivery into interactive contact with intracellular polynucleotides are disclosed. Transport is effected through at least the exterior membrane of a cell, and most likely also through the walls of subcellular structures sepd. from the cytosol by lipid membranes, including the nucleus, mitochondria, ribosomes, etc. Peptide nucleic acid (PNA) analog sequences **conjugated** through a labile disulfide bond to transporting peptides, are intracellularly cleaved, and target mRNA (antigene) or dsDNA (antisense). Such **conjugates** may be used for selective inhibition of transcription, translation, RNA or DNA expression, DNA replication, and DNA or RNA regulatory functions. Thus, a PNA antisense to the human type 1 galanin receptor is linked via a labile cysteine disulfide bond to biotin-labeled peptides known to import cell membrane permeant properties, i.e., transportan [galanin(1-12)-Lys-mastoparan(1-14)amide] or pAntennapedia [pAntp(43-58), the third helix of Atennapedia homeodomain]. The resulting **conjugates** demonstrate improved internalization and down-regulate the human galanin receptor in Bowes cell line and in rat spinal cord in vivo.

IT **220337-24-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**conjugates** of transporter peptides and nucleic acid analogs for improved delivery of antisense constructs)

IT **214556-79-3**
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(**conjugates** of transporter peptides and nucleic acid analogs for improved delivery of antisense constructs)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:52835 HCAPLUS
DOCUMENT NUMBER: 130:261569

TITLE: A Sos-derived peptidimer blocks the Ras signaling pathway by binding both Grb2 SH3 domains and displays antiproliferative activity
AUTHOR(S): Cussac, Didier; Vidal, Michel; Leprince, Corinne; Liu, Wang-Qing; Cornille, Fabrice; Tiraboschi, Gilles; Roques, Bernard P.; Garbay, Christiane
CORPORATE SOURCE: Department de Pharmacochimie Moleculaire et Structurale, INSERM U266-CNRS UMR 8600, UFR des Sciences Pharmaceutiques et Biologiques, Paris, 75270, Fr.
SOURCE: FASEB Journal (1999), 13(1), 31-38
CODEN: FAJOEC; ISSN: 0892-6638
PUBLISHER: Federation of American Societies for Experimental Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB With the aim of interrupting the growth factor-stimulated Ras signaling pathway at the level of the Grb2-Sos interaction, a peptidimer, made of two identical proline-rich sequences from Sos linked by a lysine spacer, was designed using structural data from Grb2 and a proline-rich peptide complexed with its SH3 domains. The peptidimer affinity for Grb2 is 40 nM whereas that of the monomer is 16 .mu.M, supporting the dual recognition of both Grb2 SH3 domains by the dimer. At 50 nM, the peptidimer blocks selectively Grb2-Sos complexation in ER 22 (CCL 39 fibroblasts overexpressing epidermal growth factor receptor) cellular exts. The peptidimer specifically recognizes Grb2 and does not interact with PI3K or Nck, two SH3 domain-contg. adaptors. The peptidimer was modified to enter cells by coupling to a fragment of Antennapedia homeodomain. At 10 .mu.M, the **conjugate** inhibits the Grb2-Sos interaction (100%) and MAP kinase (ERK1 and ERK2) phosphorylation (60%) without modifying cellular growth of ER 22 cells. At the same concn., the **conjugate** also inhibits both MAP kinase activation induced by nerve growth factor or epidermal growth factor in PC12 cells, and differentiation triggered by nerve growth factor. Finally, when tested for its antiproliferative activity, the **conjugate** was an efficient inhibitor of the colony formation of transformed NIH3T3/HER2 cells grown in soft agar, with an IC50 of around 1 .mu.M. Thus, the designed peptidimers appear to be interesting leads to investigate signaling and intracellular processes and for designing selective inhibitors of tumorigenic Ras-dependent processes.

IT **221694-31-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Sos-derived peptidimer blocking Ras signaling pathway by binding both Grb2 SH3 domains and displaying antiproliferative activity in transformed NIH3T3/HER2 cells)

REFERENCE COUNT: 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:706107 HCAPLUS
DOCUMENT NUMBER: 129:310883
TITLE: Peptide antiestrogen compositions and methods for treating breast cancer
INVENTOR(S): Pietras, Richard J.
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: PCT Int. Appl., 183 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9846250	A1	19981022	WO 1998-US7711	19980414
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9871273	A1	19981111	AU 1998-71273	19980414
AU 737627	B2	20010823		
EP 1005357	A1	20000607	EP 1998-918327	19980414
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9808863	A	20010918	BR 1998-8863	19980414
MX 9909371	A	20000831	MX 1999-9371	19991013
US 6306832	B1	20011023	US 1999-419826	19991014

PRIORITY APPLN. INFO.: US 1997-43545P P 19970414
WO 1998-US7711 W 19980414

OTHER SOURCE(S): MARPAT 129:310883

AB Methods and compns. are disclosed which comprise native, site-specifically mutagenized, and synthetic peptides comprising portions of the human estrogen receptor, or estrogen receptor co-activator, and nucleic acid compns. encoding these polypeptide compns. Also disclosed are methods for synthesizing phosphotyrosyl and malonyltyrosyl peptide derivs. and their use as antiestrogen compns. in the treatment of breast cancers, the prepn. of pharmaceutical compns., diagnostic kits, and the development of related assays for use in antitumor therapies.

IT **188842-14-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptide antiestrogen compns. and methods for treating breast cancer)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 49 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:678096 HCAPLUS
DOCUMENT NUMBER: 130:57118
TITLE: Delivery of antisense oligonucleotides using HPMA polymer: synthesis of a thiol polymer and its **conjugation** to water-soluble molecules
AUTHOR(S): Wang, Laixin; Kristensen, Jakob; Ruffner, Duane E.
CORPORATE SOURCE: Department of Pharmaceutics and Pharmaceutical Chemistry, University of Utah, Salt Lake City, UT, 84108, USA
SOURCE: Bioconjugate Chemistry (1998), 9(6), 749-757
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We report the synthesis and characterization of N-(2-hydroxypropyl)methacrylamide (HPMA)-based polymers for use as carriers for

the delivery of water-sol. drugs. The polymers contain active-sulfhydryl groups for coupling of ligands through a disulfide linkage. The polymers can also be prepd. contg. pendant amino groups in addn. to the active-sulfhydryl moiety. This allows the use of different chemistries to **conjugate** a variety of ligands to the polymer. We demonstrate that a sulfhydryl-terminated antisense oligonucleotide can be efficiently and rapidly **conjugated** to the polymers. The polymer-oligonucleotide **conjugate** is efficiently taken up by cultured cells.

IT **209323-98-8**
RL: PRP (Properties)
(kinetics of reaction with thiol methacrylamide polymers)

IT **209323-98-8DP**, reaction products with thiol methacrylamide polymer and oligonucleotide
RL: SPN (Synthetic preparation); PREP (Preparation)
(thiol polymers for delivery of antisense oligonucleotides)

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:268390 HCAPLUS
DOCUMENT NUMBER: 128:312935
TITLE: Process for producing biologically active polymer nanoparticle-nucleic acid **conjugates**
INVENTOR(S): Bayer, Ernst; Fritz, Hans; Maier, Martin
PATENT ASSIGNEE(S): SKW Trostberg A.-G., Germany; Bayer, Ernst; Fritz, Hans; Maier, Martin
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9817317	A2	19980430	WO 1997-EP5790	19971021
WO 9817317	A3	19980806		
W: AU, BR, CA, JP, KR, MX, NO, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19746362	A1	19980430	DE 1997-19746362	19971021
AU 9868108	A1	19980515	AU 1998-68108	19971021
EP 934082	A2	19990811	EP 1997-948768	19971021
EP 934082	B1	20020717		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE				
JP 2001503041	T2	20010306	JP 1998-518954	19971021
AT 220559	E	20020815	AT 1997-948768	19971021
US 2003087436	A1	20030508	US 2002-174617	20020619

PRIORITY APPLN. INFO.: DE 1996-19643738 A 19961023
WO 1997-EP5790 W 19971021
US 1999-295817 B1 19990421

AB The title **conjugates** are prepd. by polymg. vinyl monomers with a low water soly. in an aq. soln., then reacting the resulting polymer suspensions with the nucleic acids. The vinyl monomers are emulsion polymd. in the presence of cationic radical initiators but in the absence of any emulsifier. The polymer nanoparticle-nucleic acid **conjugates** are sufficiently stable in biol. media and show high transport efficiency through cellular membranes. The **conjugates** are useful for regulation of gene expression and for gene transfer. The

conjugated nucleic acids are protected from enzymic degrdn. The particles show a high degree of loading with nucleic acid. Thus, a copolymer of styrene and 2,2'-azobis(2-amidinopropane)-2HCl was prepd. in aq. medium by emulsion polymn. at 80.degree. and dialyzed to remove residual monomer and dissolved polymer. The polymer suspension (particle size 400-500 nm) was incubated with a 20-mer phosphorothioate oligodeoxynucleotide for 12-24 h; the loading d. was 10.6 mg oligonucleotide/g polymer.

IT **188842-14-0**, Penetratin-1
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymer-oligodeoxyribonucleotide **conjugate** modified with; biol. active polymer nanoparticle-nucleic acid **conjugates**)

L6 ANSWER 51 OF 51 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:650363 HCAPLUS
DOCUMENT NUMBER: 127:314829
TITLE: Peptides and peptidomimetics for prevention of neuronal cell death, and uses thereof
INVENTOR(S): Troy, Carol M.
PATENT ASSIGNEE(S): Trustees of Columbia University In the City of New York, USA; Troy, Carol M.
SOURCE: PCT Int. Appl., 111 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9735876	A1	19971002	WO 1997-US4158	19970304
W: AU, CA, JP, MX, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 2003099638	A1	20030529	US 1996-610220	19960304
AU 9735230	A1	19971017	AU 1997-35230	19970304
EP 938495	A1	19990901	EP 1997-919883	19970304
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2002044931	A1	20020418	US 1998-150623	19980904
PRIORITY APPLN. INFO.:			US 1996-610220	A2 19960304
			WO 1997-US4158	W 19970304

OTHER SOURCE(S): MARPAT 127:314829

AB The invention provides compds. (AA1)n-Cys-(AA2)m [n, m = 0-5, provided (n+m).gtoreq.2 and .ltoreq.5; if n = 1, (AA1)n = Ala; if n = 2, (AA1)n = Gln-Ala; if n .gtoreq. 3, (AA1)n = (Xaa)p-Gln-Ala (= any amino acid) (if n = 3, p = 1; if n = 4, p = 2, if n = 5, p = 3); if m = 1, (AA2)m = Arg; if m = 2, (AA2)m = Arg-Gly; if m .gtoreq. 3, (AA2)m = Arg-Gly-(Xaa)q (if m = 3, q = 1; if m = 4, q = 2; if m = 5, q = 3)]. A method of inhibiting cell death and a method for alleviating symptoms of a neurodegenerative disorder in a subject are provided.. Multiple pathways for neuronal death induced by DNA-damaging agents, NGF deprivation, and superoxide dismutase-1 depletion are also addressed.

IT **188842-14-0D**, peptide reaction products
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptides and peptidomimetics for prevention of neuronal cell death,

and uses thereof)

=> select hit rn l6 1-51
E1 THROUGH E28 ASSIGNED

=> fil reg
FILE 'REGISTRY' ENTERED AT 14:55:13 ON 15 JUL 2003

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 JUL 2003 HIGHEST RN 548428-18-8
DICTIONARY FILE UPDATES: 14 JUL 2003 HIGHEST RN 548428-18-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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1 376600-63-4/BI
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1 393511-85-8/BI
(393511-85-8/RN)
1 404562-88-5/BI
(404562-88-5/RN)
1 404562-89-6/BI
(404562-89-6/RN)
1 404932-03-2/BI
(404932-03-2/RN)
1 214556-79-3/BI
(214556-79-3/RN)
1 220337-24-6/BI
(220337-24-6/RN)
1 221694-31-1/BI
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L10        548 SEA FILE=REGISTRY ABB=ON  RQIKIWFQNRRMKWKK/SQSP
L11         28 SEA FILE=REGISTRY ABB=ON  L8 AND L10


=> d sqide can l11 1-28

L11  ANSWER 1 OF 28  REGISTRY  COPYRIGHT 2003 ACS
RN   497932-98-6  REGISTRY
CN   L-Lysinamide, N-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]glycyl-L-
     cysteinyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-
     tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-
     methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI)  (CA INDEX NAME)
```

FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 18.
NTE modified

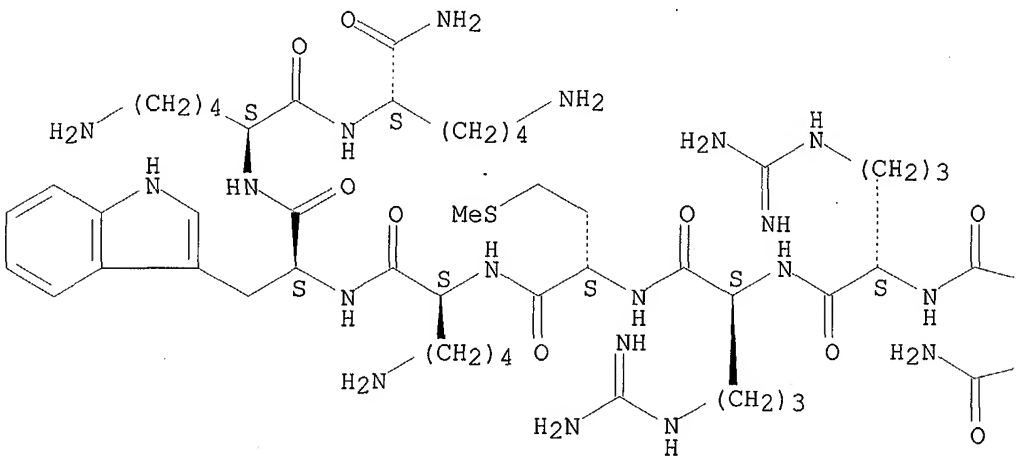
type	------ location ------		description
terminal mod.	Lys-18	-	C-terminal amide
modification	Gly-1	-	[5-(dimethylamino) -1-naphthalenyl]sulfonyl

SEQ 1 GCRQIKIWFQ NRRMKWKK
========= ========

HITS AT: 3-18
MF C121 H188 N38 O23 S3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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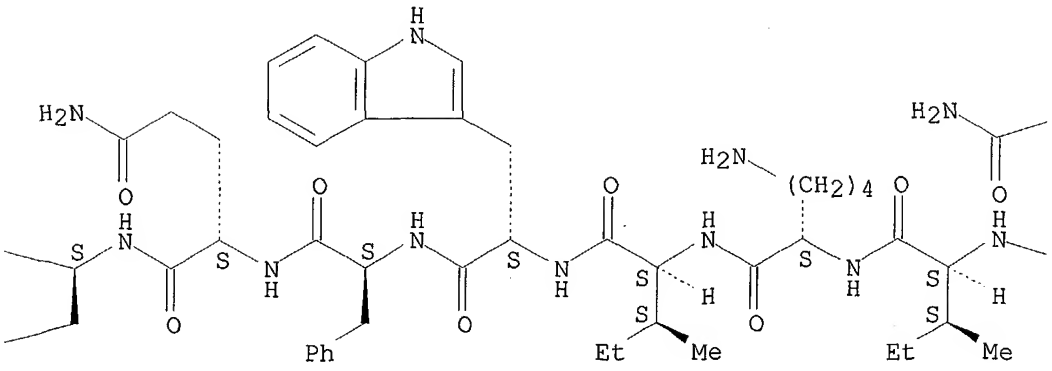
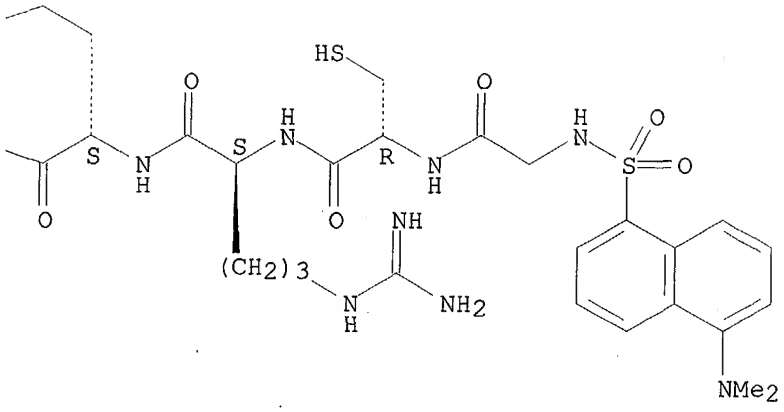


PAGE 1-C



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 138:184524

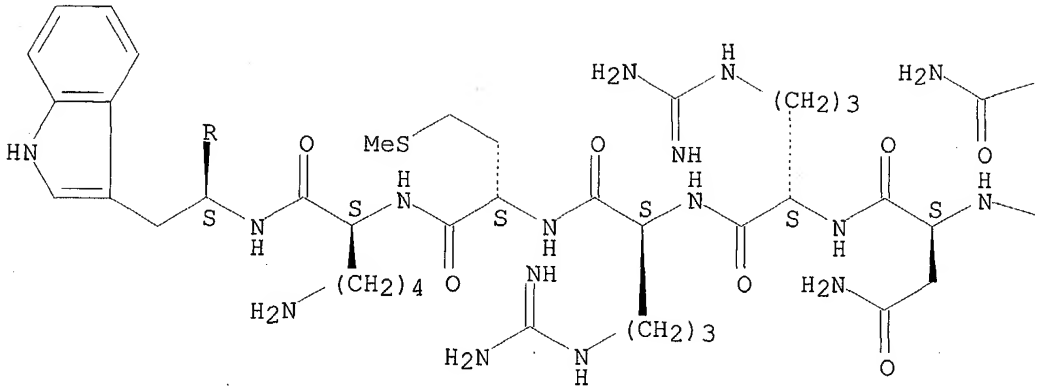
L11 ANSWER 2 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **491875-77-5** REGISTRY
CN L-Lysine, N2-[6-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]-1-oxohexyl]-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17
NTE modified (modifications unspecified)

type	------ location ------		description
uncommon	Oaa-1	-	-
modification	Oaa-1	-	undetermined modification

SEQ 1 XRQIKIWFQN RRMKWKK
========== =======
HITS AT: 2-17
MF C131 H190 N36 O26 S2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-A



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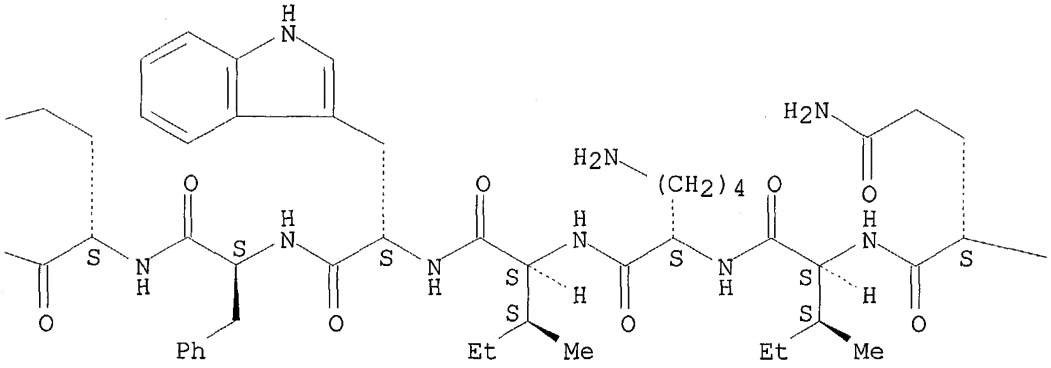

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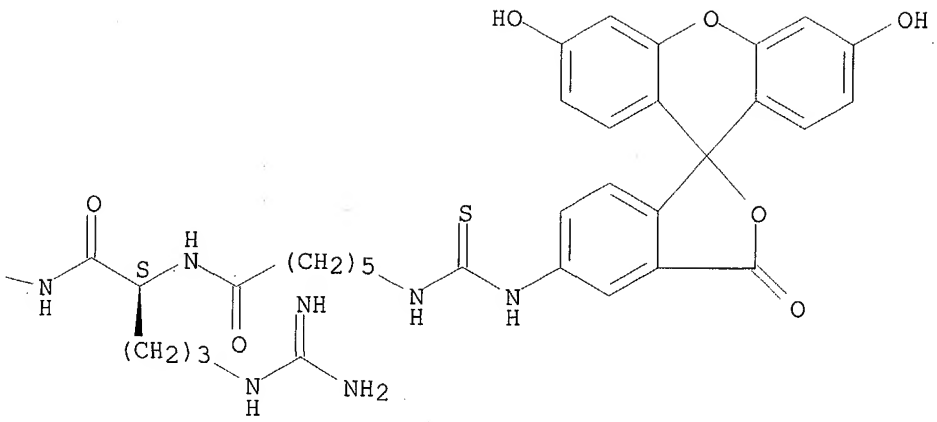
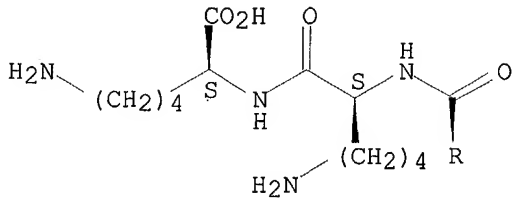


PAGE 2-A



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 138:142467

L11 ANSWER 3 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **489445-40-1** REGISTRY
CN L-Cysteinamide, L-methionyl-L-leucyl-L-seryl-L-alanyl-L-leucyl-L-alanyl-L-arginyl-L-prolyl-L-valyl-L-seryl-L-alanyl-L-alanyl-L-leucyl-L-arginyl-L-arginyl-L-seryl-L-phenylalanyl-L-seryl-L-threonyl-L-seryl-L-alanyl-, (22.fwdarw.17')-disulfide with N2-[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl-L-lysyl-L-cysteinamide (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
SQL 39,22,17
NTE multichain
modified (modifications unspecified)

type	------ location ------		description
bridge	Cys-22	- Cys-17'	disulfide bridge

SEQ 1 MLSALARPVS AALRRSFSTS AC

SEQ 1 RQIKIWFQNR RMKWKKC
========== ======

HITS AT: 1-16
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 138:126878

L11 ANSWER 4 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **489445-39-8** REGISTRY
CN L-Cysteinamide, L-methionyl-L-leucyl-L-seryl-L-alanyl-L-leucyl-L-alanyl-L-arginyl-L-prolyl-L-valyl-L-seryl-L-alanyl-L-alanyl-L-leucyl-L-arginyl-L-arginyl-L-seryl-L-phenylalanyl-L-seryl-L-threonyl-L-seryl-L-alanyl-N6-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-L-lysyl-, (23.fwdarw.17')-disulfide with L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl-L-lysyl-L-cysteinamide (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
SQL 40,23,17
NTE multichain
modified (modifications unspecified)

type	------ location ------		description
bridge	Cys-23	- Cys-17'	disulfide bridge

SEQ 1 MLSALARPVS AALRRSFSTS AKC

SEQ 1 RQIKIWFQNR RMKWKKC
========== ======

HITS AT: 1-16
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 138:126878

L11 ANSWER 5 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **473828-49-8** REGISTRY
CN L-Serine, L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl-L-lysyl-L-valyl-L-.alpha.-aspartyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 44: PN: WO02083179 SEQID: 45 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 19

PATENT ANNOTATIONS (PNTE):

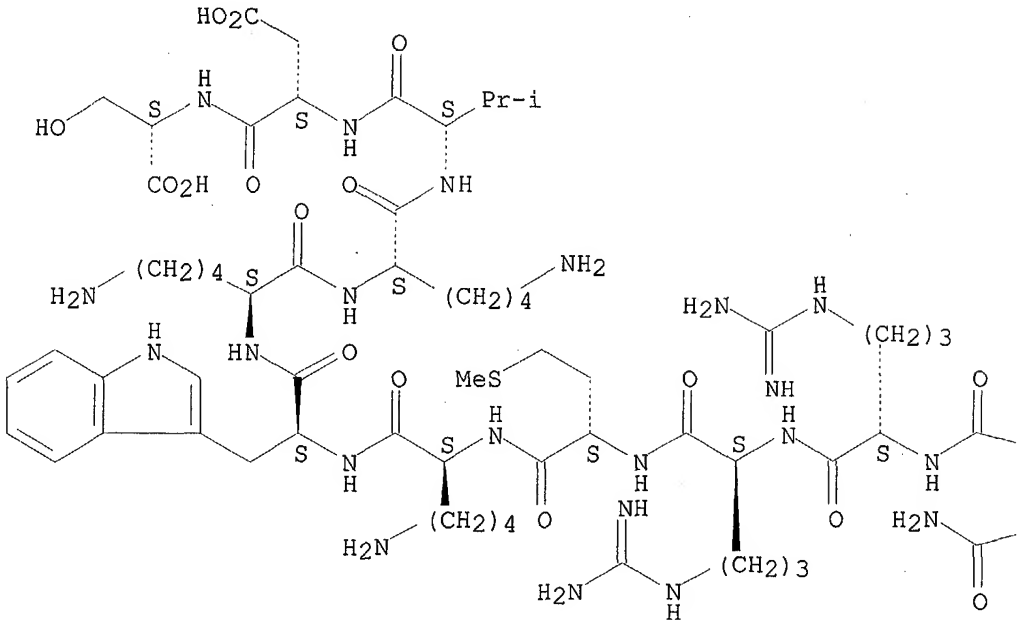
Sequence Source	Patent Reference
Not Given	WO2002083179
	claimed
	SEQID 45

SEQ 1 RQIKIWFQNR RMKWKKVDS

HITS AT: 1-16
MF C116 H187 N37 O26 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



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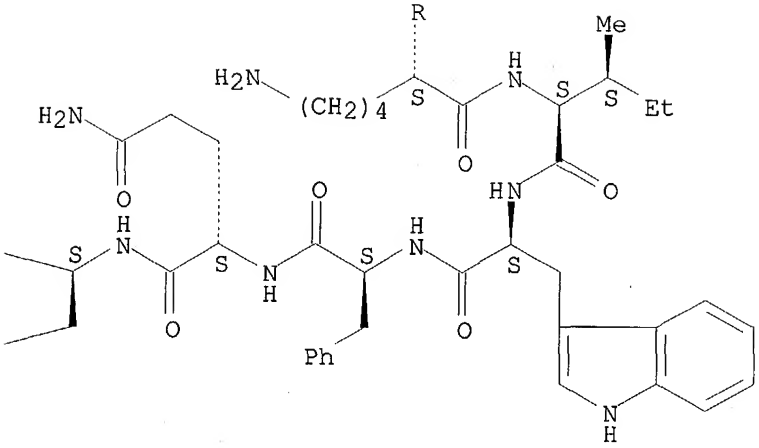

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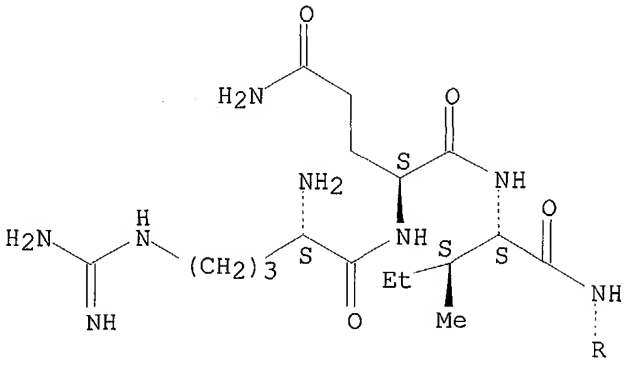


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:333160

L11 ANSWER 6 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **466680-95-5** REGISTRY
CN L-Lysinamide, 2,3,4,5-tetradehydro-1-methyl-4-[[[1-methyl-4-[[2,3,4,5-tetradehydro-1-methyl-4-[[[1-methyl-4-[[4-[[[1-methyl-4-[[[1-methyl-4-[[2,3,4,5-tetradehydro-1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]prolyl-.beta.-alanyl]amino]-1H-imidazol-2-

yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1H-imidazol-2-yl]carbonyl]amino]prolyl-.beta.-alanyl]amino]-1H-imidazol-2-yl]carbonyl]amino]prolyl-.beta.-alanyl[[2-[[3-[(3-aminopropyl)methylamino]propyl]amino]-2-oxoethyl]thio]acetylglycyl-L-prolylglycyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
SQL 19
NTE modified (modifications unspecified)

SEQ 1 GPGRQIKIWF QNRRMKWKK
=======
HITS AT: 4-19

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:279440

L11 ANSWER 7 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **465545-91-9** REGISTRY
CN L-Lysinamide, N-(bromoacetyl)glycyl-L-prolylglycyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 19
NTE modified

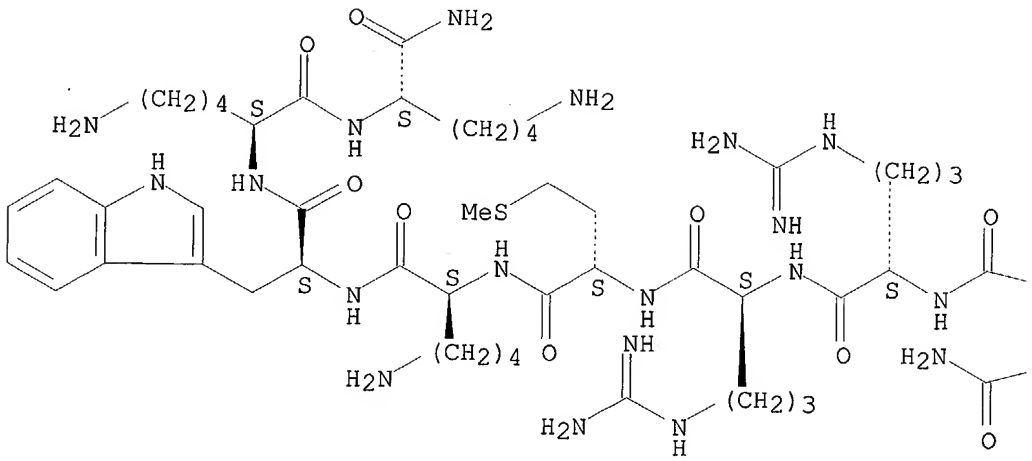
type	------ location ------		description
terminal mod.	Lys-19	-	C-terminal amide
modification	Gly-1	-	bromoacetyl<Bac>

SEQ 1 GPGRQIKIWF QNRRMKWKK
=======
HITS AT: 4-19

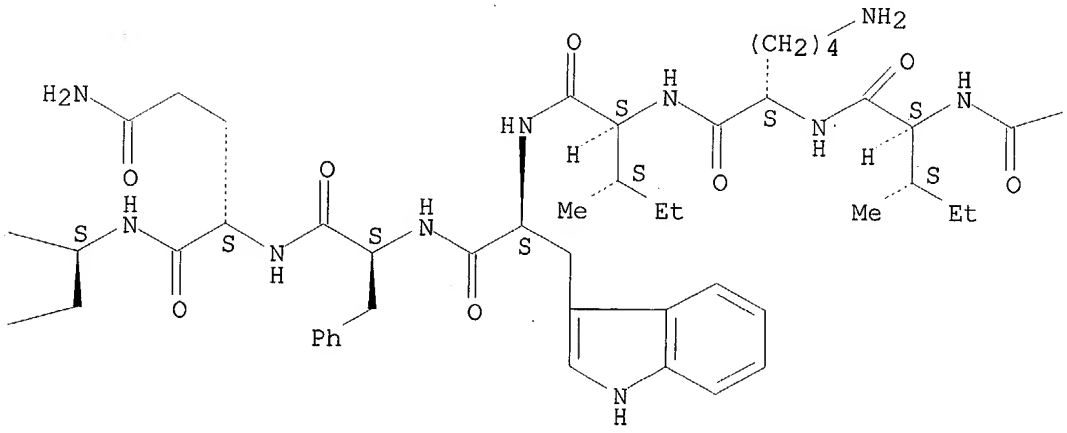
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C115 H183 Br N38 O23 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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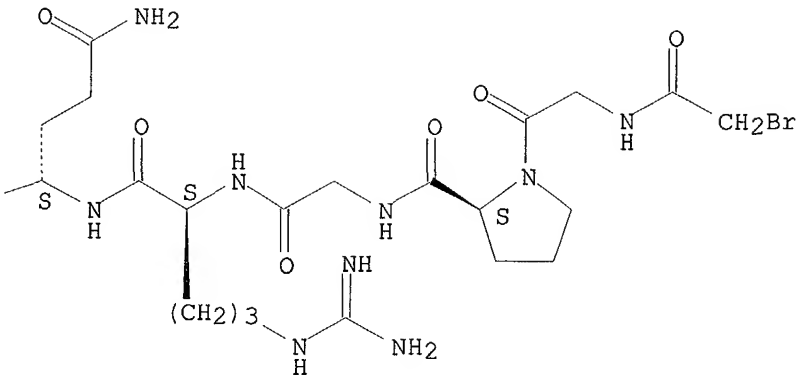


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:279440

L11 ANSWER 8 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **463347-86-6** REGISTRY
CN L-Lysine, L-methionyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 42: PN: WO02074920 SEQID: 15 unclaimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17

PATENT ANNOTATIONS (PNTE):

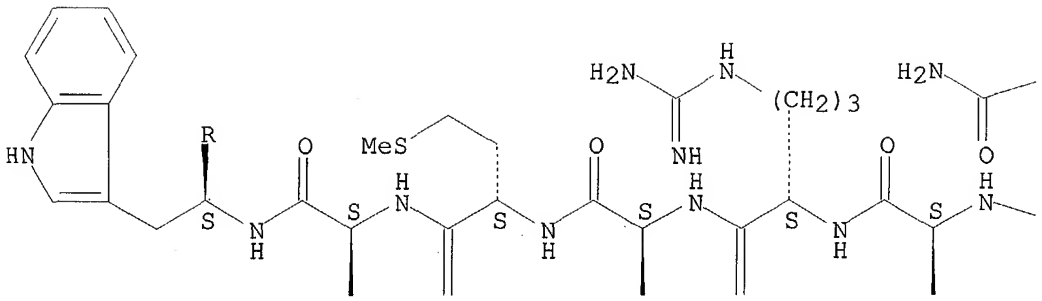
Sequence Source	Patent Reference
Not Given	WO2002074920
	unclaimed
	SEQID 15

SEQ 1 MRQIKIWFQN RRMKWKK

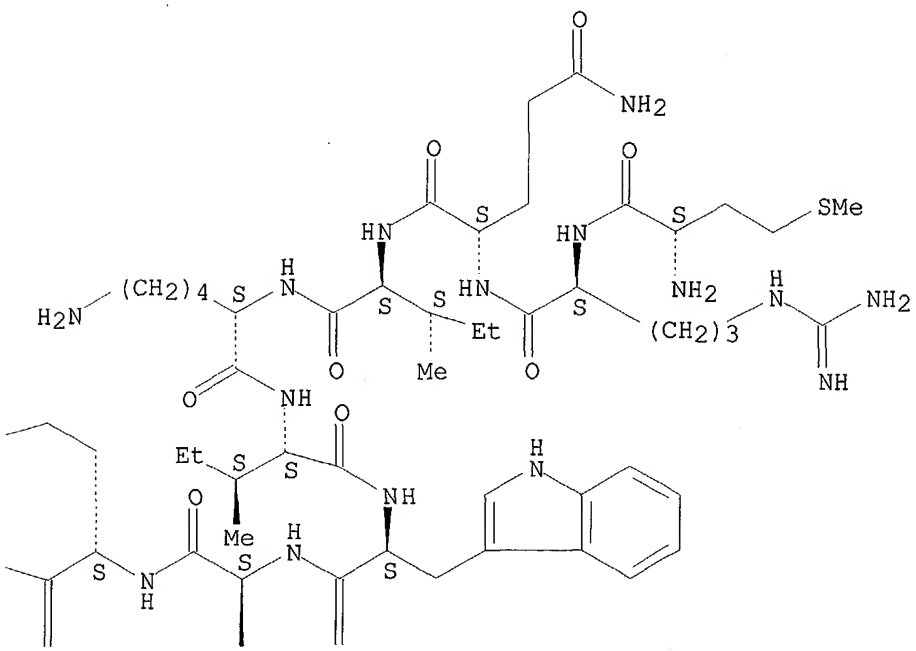
HITS AT: 2-17
MF C109 H177 N35 O21 S2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

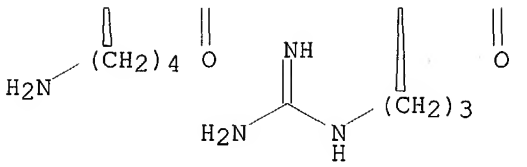
PAGE 1-A

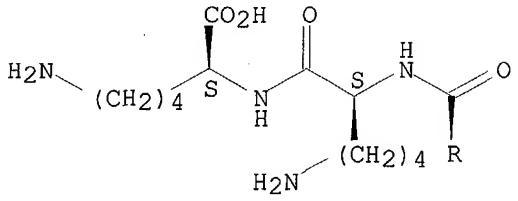


PAGE 1-B



PAGE 2-A





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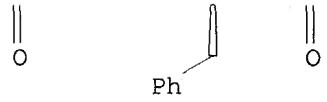


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:261875

L11 ANSWER 9 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **459146-74-8** REGISTRY
CN L-Lysinamide, L-cysteinyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl-, (1.fwdarw.1')-disulfide with L-cysteinyl-L-histidyl-L-.alpha.-aspartyl-L-alanyl-L-prolyl-L-isoleucylglycyl-L-tyrosyl-L-aspartic acid (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 26,17,9
NTE multichain
modified

type	location		description
terminal mod.	Lys-17	-	C-terminal amide
bridge	Cys-1	- Cys-1'	disulfide bridge

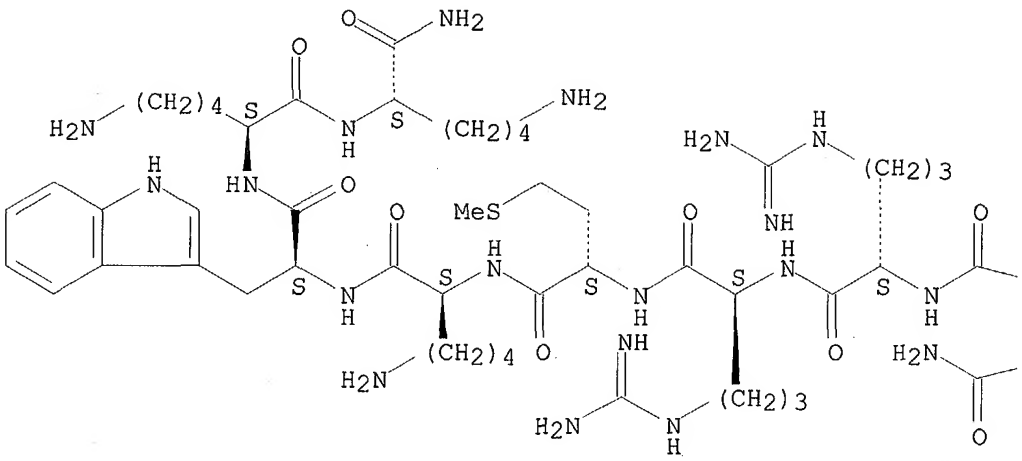
SEQ 1 CRQIKIWFQN RRMKWKK
========= =======
HITS AT: 2-17

SEQ 1 CHDAPIGYD
MF C149 H231 N47 O35 S3

SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



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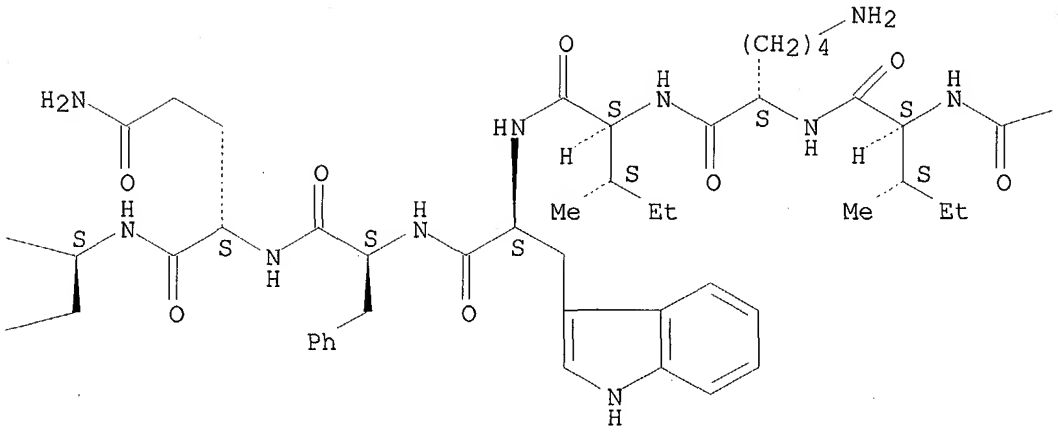
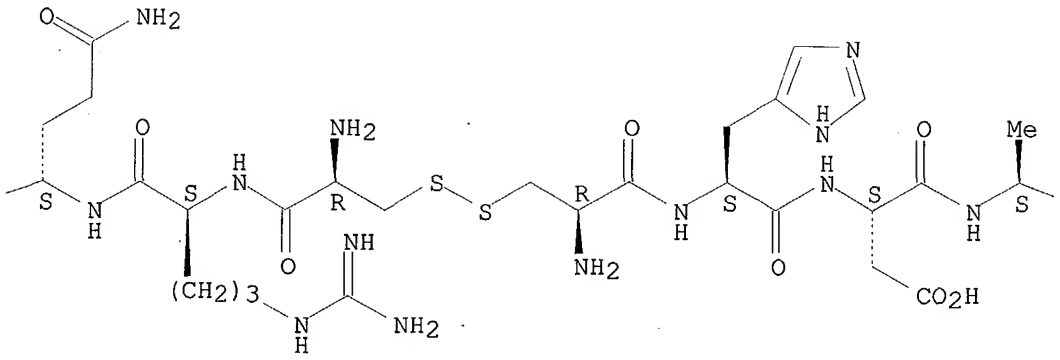
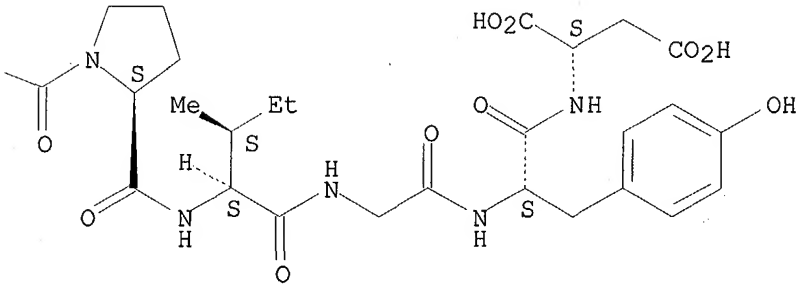


PAGE 1-C



PAGE 1-D



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:237523

L11 ANSWER 10 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **404932-03-2** REGISTRY
CN L-Lysinamide, N-acetyl-L-cysteinyl-4-aminobutanoylglycylglycyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl-, disulfide with DNA d(T-G-T-T-A-T-T-C-T-T-T-A-G-A-A-T-G-G) 3'-[O-[4-[(2-mercaptoethyl)amino]-4-oxobutyl] hydrogen phosphorothioate] (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
SQL 20
NTE modified (modifications unspecified)

type	------ location ------	description

type	location		description
uncommon	Oaa-2	-	-

SEQ 1 CXGGRQIKIW FQNRRMKWKK
======= ==========
HITS AT: 5-20

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:279471

REFERENCE 2: 136:263470

L11 ANSWER 11 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **404562-89-6** REGISTRY
CN Peptide, (Cys-Xaa-Gly-Gly-Arg-Gln-Ile-Lys-Ile-Trp-Phe-Gln-Asn-Arg-Arg-Met-Lys-Trp-Lys-Lys) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 8: PN: WO0220544 SEQID: 8 unclaimed protein
FS PROTEIN SEQUENCE
SQL 20
NTE

type	location		description
uncommon	Aaa-2	-	-

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2002020544 unclaimed SEQID 8

SEQ 1 CXGGRQIKIW FQNRRMKWKK
======= ==========
HITS AT: 5-20
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:279471

REFERENCE 2: 136:263470

L11 ANSWER 12 OF 28 REGISTRY COPYRIGHT 2003 ACS

RN **404562-88-5** REGISTRY
CN Peptide, (Xaa-Gly-Gly-Arg-Gln-Ile-Lys-Ile-Trp-Phe-Gln-Asn-Arg-Arg-Met-Lys-Trp-Lys-Lys) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 7: PN: WO0220544 SEQID: 7 unclaimed protein
FS PROTEIN SEQUENCE
SQL 19
NTE

type	------ location ------		description
uncommon	Aaa-1	-	-

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2002020544 unclaimed SEQID 7

SEQ 1 XGGRQIKIWF QNRRMKWKK
=======
=========
HITS AT: 4-19
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:279471

REFERENCE 2: 136:263470

L11 ANSWER 13 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **402938-17-4** REGISTRY
CN L-Lysine, glycyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 9: PN: WO0218572 TABLE: 1 unclaimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2002018572 unclaimed TABLE 1

SEQ 1 GRQIKIWFQN RRMKWKK
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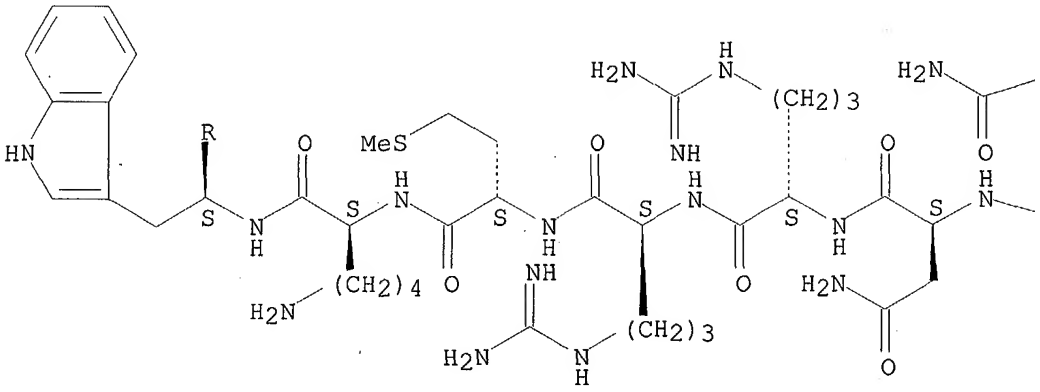
HITS AT: 2-17

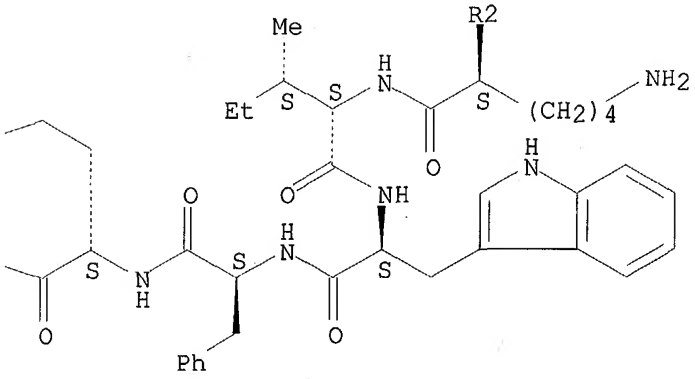
MF C106 H171 N35 O21 S
SR CA'
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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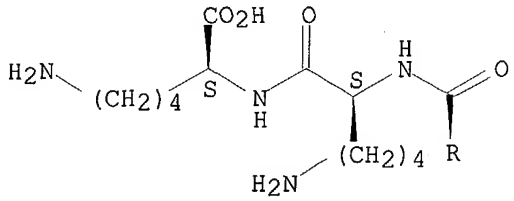

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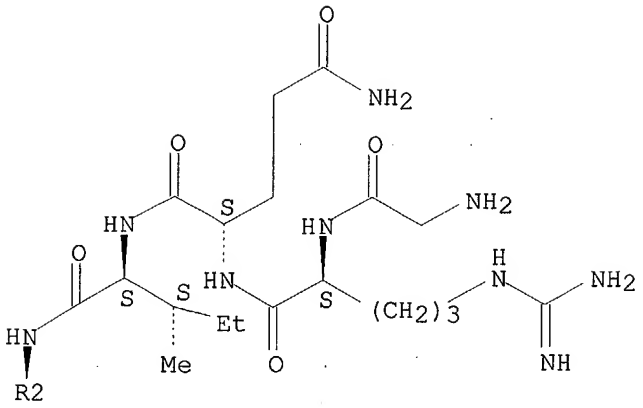


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 136:228585

L11 ANSWER 14 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **393511-85-8** REGISTRY
CN L-Cysteine, L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl-L-lysyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 3: PN: US20020151004 PAGE: 25 claimed protein
CN 3: PN: WO02057436 PAGE: 111 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17

PATENT ANNOTATIONS (PNTE):

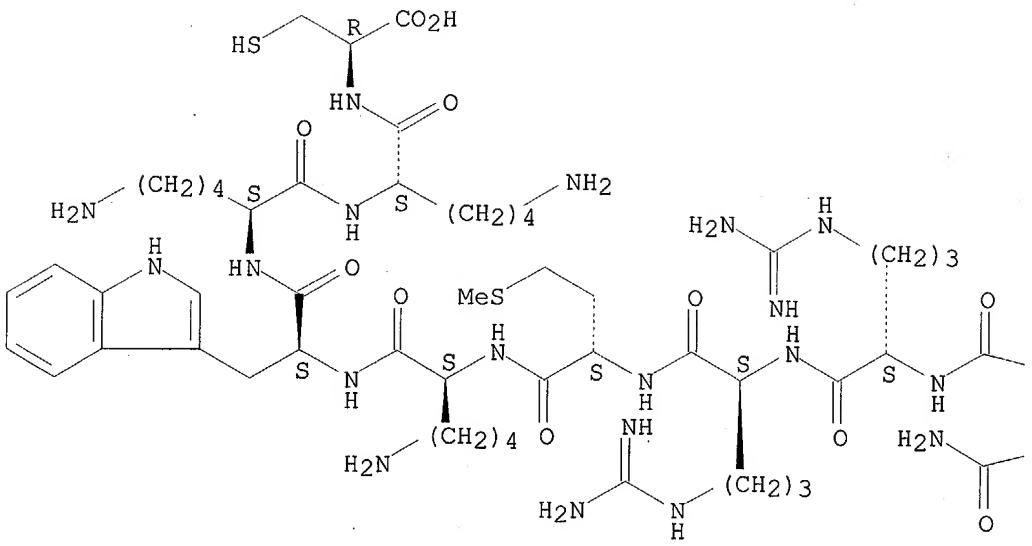
Sequence Source	Patent Reference
Not Given	WO2002057436 claimed PAGE 111

SEQ 1 RQIKIWFQNR RMKWKKC

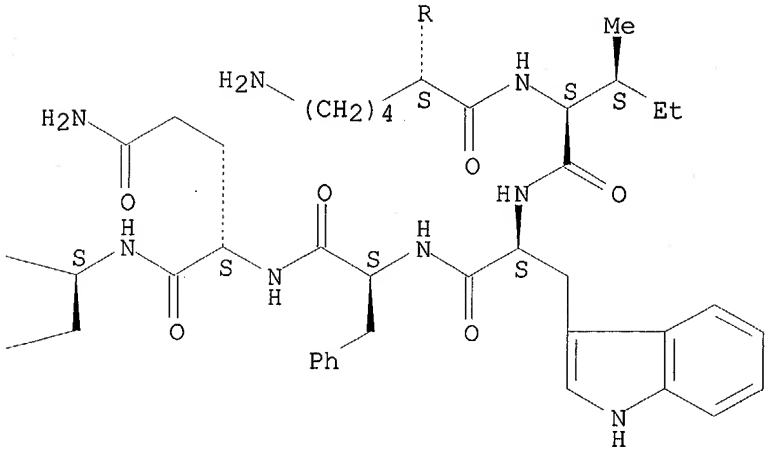
HITS AT: 1-16
MF C107 H173 N35 O21 S2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

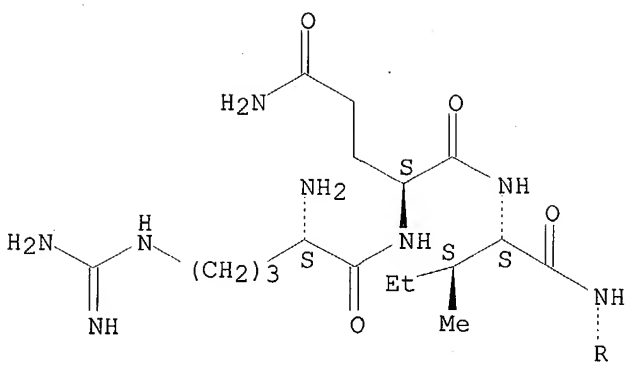
PAGE 1-A



PAGE 1-B



PAGE 2-A



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
4 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:329413

REFERENCE 2: 137:120671

REFERENCE 3: 136:156414

L11 ANSWER 15 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **376600-63-4** REGISTRY
CN L-Lysinamide, N-acetyl-L-cysteinyl-4-aminobutanoylglycylglycyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 20
NTE modified

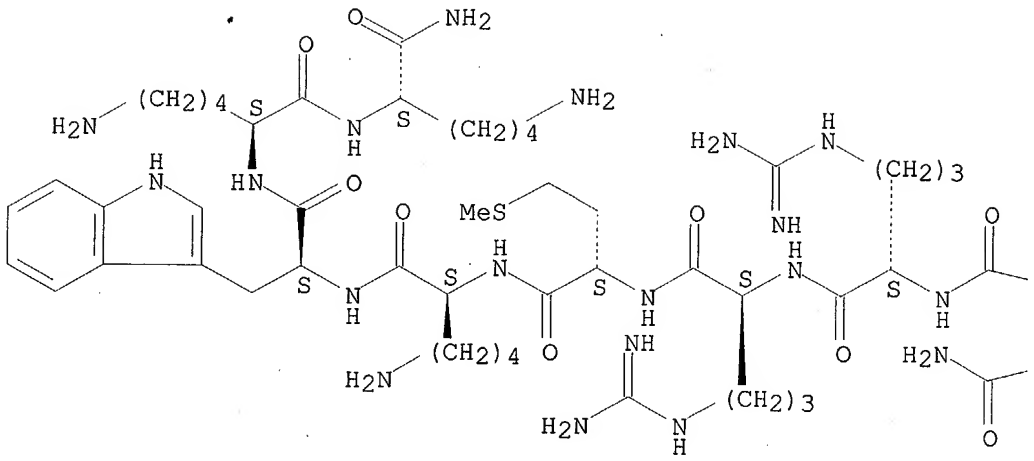
type	------ location ------		description
terminal mod.	Cys-1	-	N-acetyl
terminal mod.	Lys-20	-	C-terminal amide
uncommon	Oaa-2	-	-

SEQ 1 CXGGRQIKIW FQNRRMKWKK
====== ==========
HITS AT: 5-20

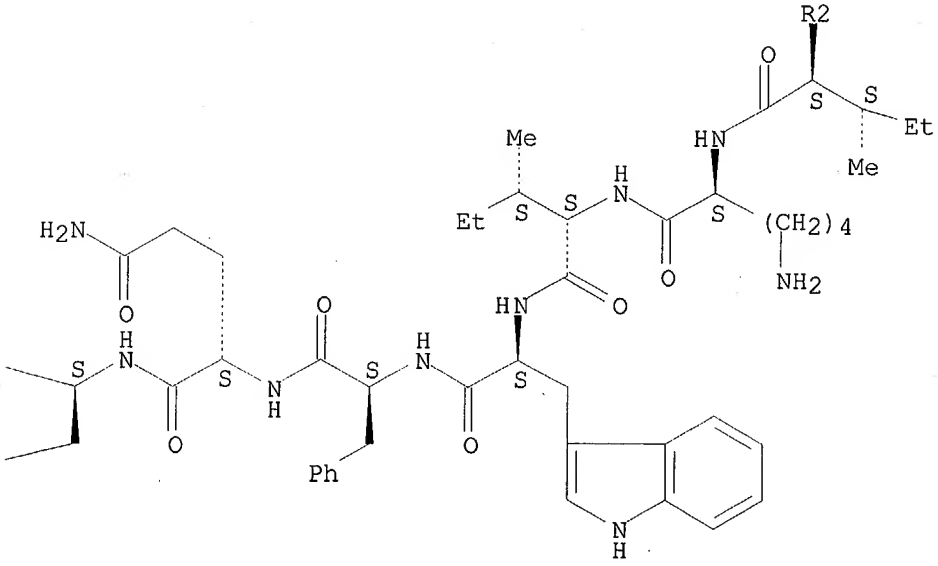
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C117 H189 N39 O24 S2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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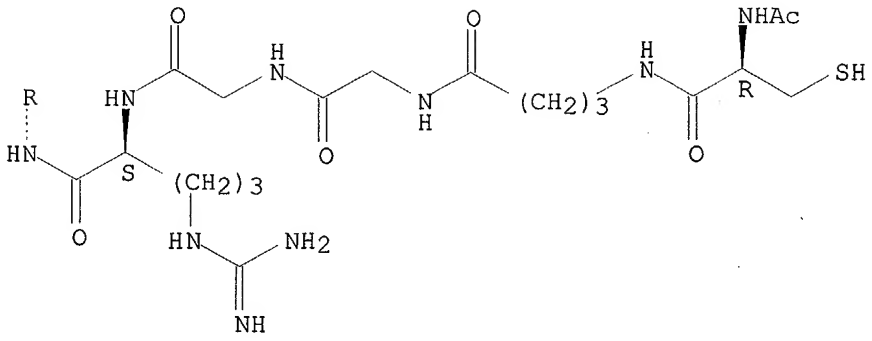

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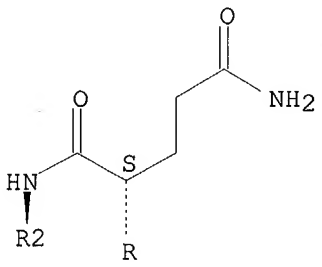

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:279471

REFERENCE 2: 136:263470

REFERENCE 3: 136:20235

L11 ANSWER 16 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **344466-28-0** REGISTRY
CN D-Lysine, D-arginyl-D-glutaminyl-D-isoleucyl-D-lysyl-D-isoleucyl-D-tryptophyl-D-phenylalanyl-D-glutaminyl-D-asparaginyl-D-arginyl-D-arginyl-D-methionyl-D-lysyl-D-tryptophyl-D-lysyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 11: PN: WO02088370 SEQID: 12 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 16

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2002088370

|claimed
|SEQID 12

SEQ 1 RQIKIWFQNR RMKWKK
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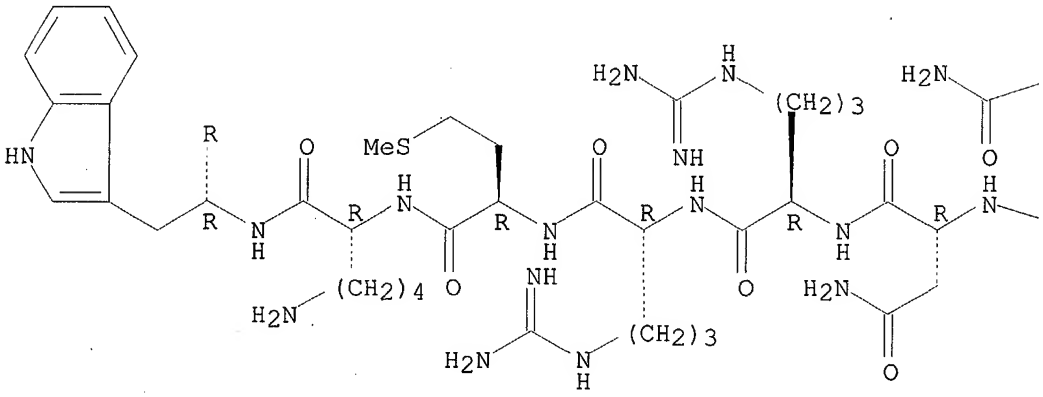
HITS AT: 1-16

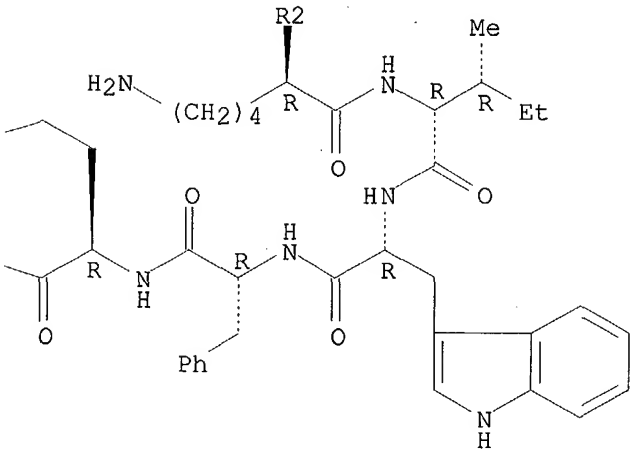
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C104 H168 N34 O20 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

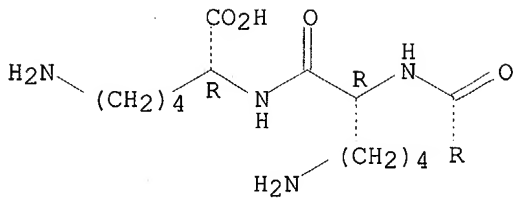
PAGE 1-A

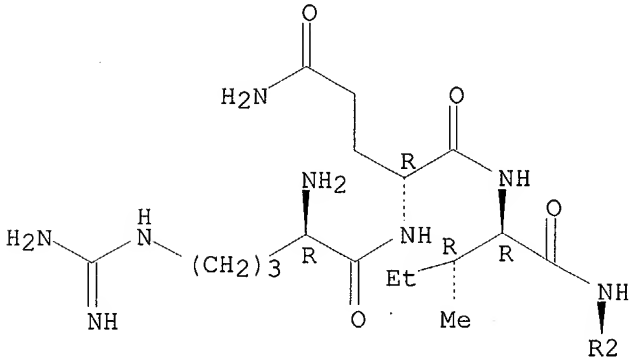


PAGE 1-B



PAGE 2-A





2 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 137:364339

REFERENCE 2: 135:40598

L11 ANSWER 17 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **321164-80-1** REGISTRY
CN DNA, d(P-thio)(T-G-G-C-G-T-C-T-T-T-C-C-A-T-T-T), 3'-[O-[3-[(L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl-L-lysyl)amino]-2-hydroxypropyl] hydrogen phosphorothioate] (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
SQL 16
NTE conjugated
modified (modifications unspecified)

SEQ 1 RQIKIWFQNR RMKWKK
========== ======
HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 134:116219

L11 ANSWER 18 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **300575-25-1** REGISTRY
CN L-Lysine, N2-[(1,1-dimethylethoxy)carbonyl]-N6-[4-[(1,4-dioxopentyl)amino]butyl]-L-lysyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17
NTE modified (modifications unspecified)

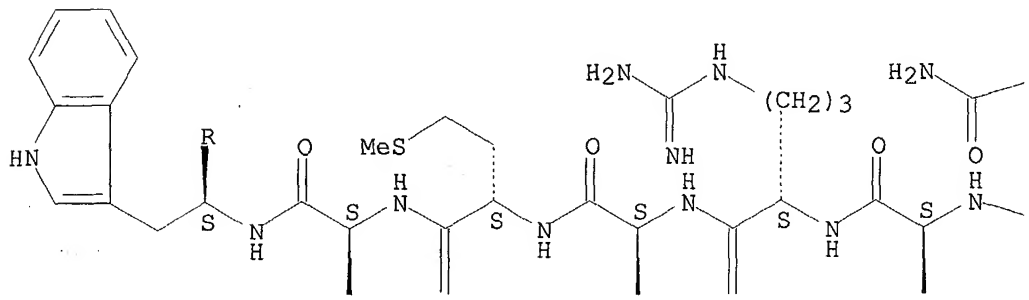
type	------ location ------		description
modification	Lys-1	-	(1,1-dimethylethoxy) carbonyl<Boc>
modification	Lys-1	-	undetermined modification

SEQ 1 KRQIKIWFQN RRMKWKK
==========
HITS AT: 2-17

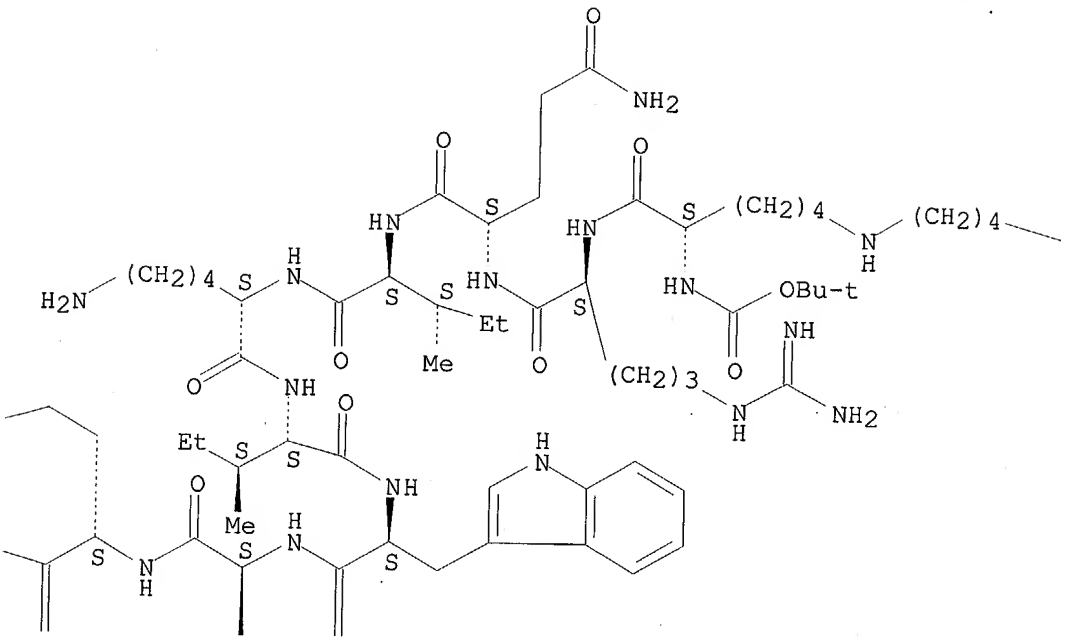
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C124 H203 N37 O25 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

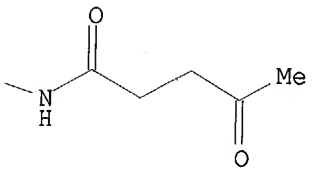
PAGE 1-A



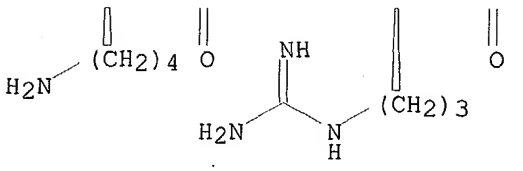
PAGE 1-B

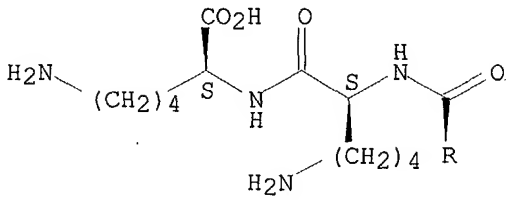


PAGE 1-C

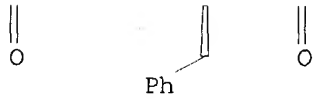


PAGE 2-A





PAGE 2-B



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 133:292464

L11 ANSWER 19 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **300575-24-0** REGISTRY
CN L-Lysine, N2-[(1,1-dimethylethoxy)carbonyl]-N6-[4-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]butyl]-L-lysyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17
NTE modified (modifications unspecified)

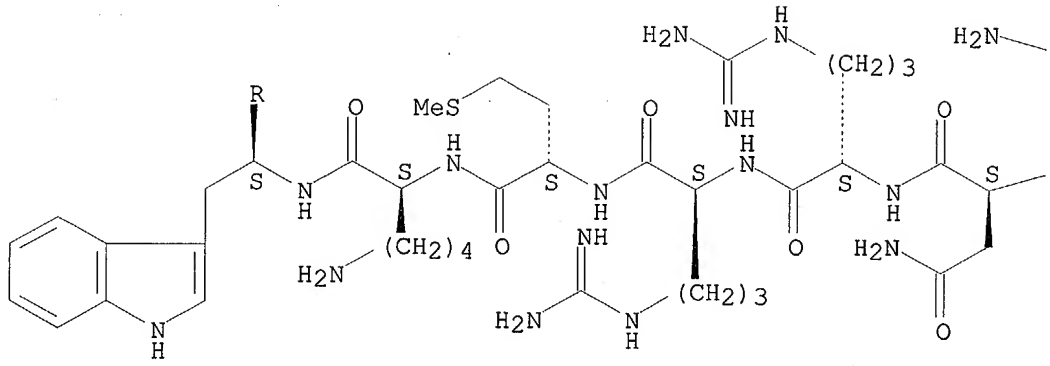
type	------ location ------		description
modification	Lys-1	-	(1,1-dimethylethoxy) carbonyl<Boc>
modification	Lys-1	-	undetermined modification

SEQ 1 KRQIKIWFQN RRMKWKK
========== =======
HITS AT: 2-17

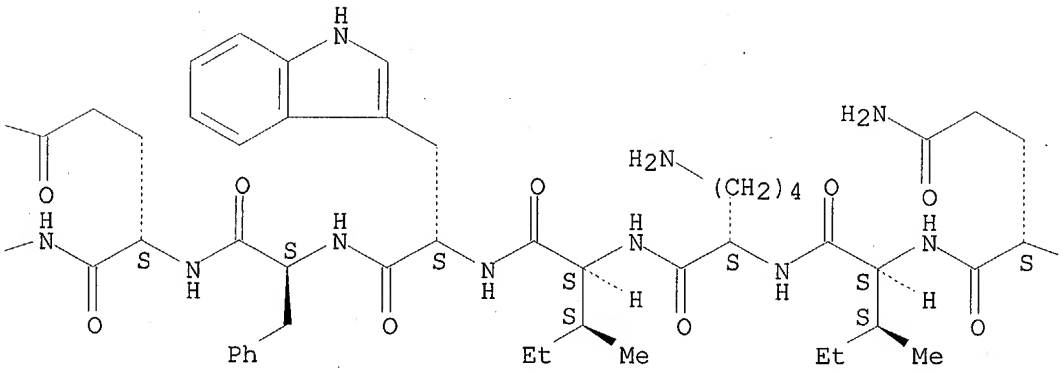
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C134 H207 N37 O25 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

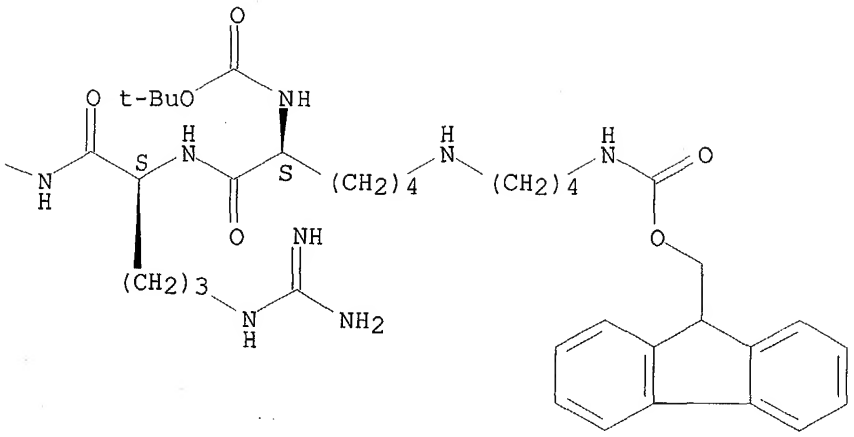
PAGE 1-A



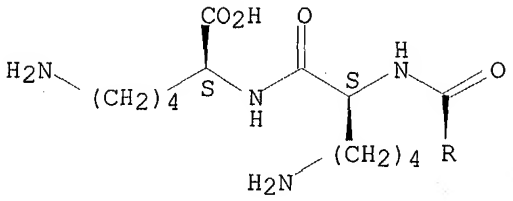
PAGE 1-B



PAGE 1-C



PAGE 2-A



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 133:292464

L11 ANSWER 20 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **300575-23-9** REGISTRY
CN L-Lysine, N6-[4-[(1,4-dioxopentyl)amino]butyl]-L-lysyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Lys-1	-	undetermined modification

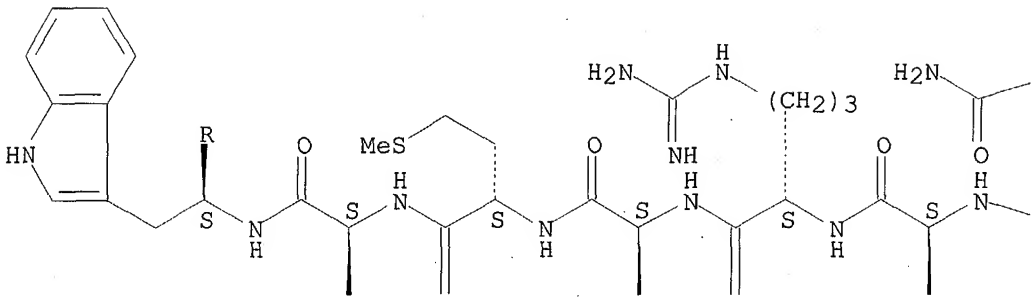
SEQ 1 KRQIKIWFQN RRMKWKK
========= =======

HITS AT: 2-17

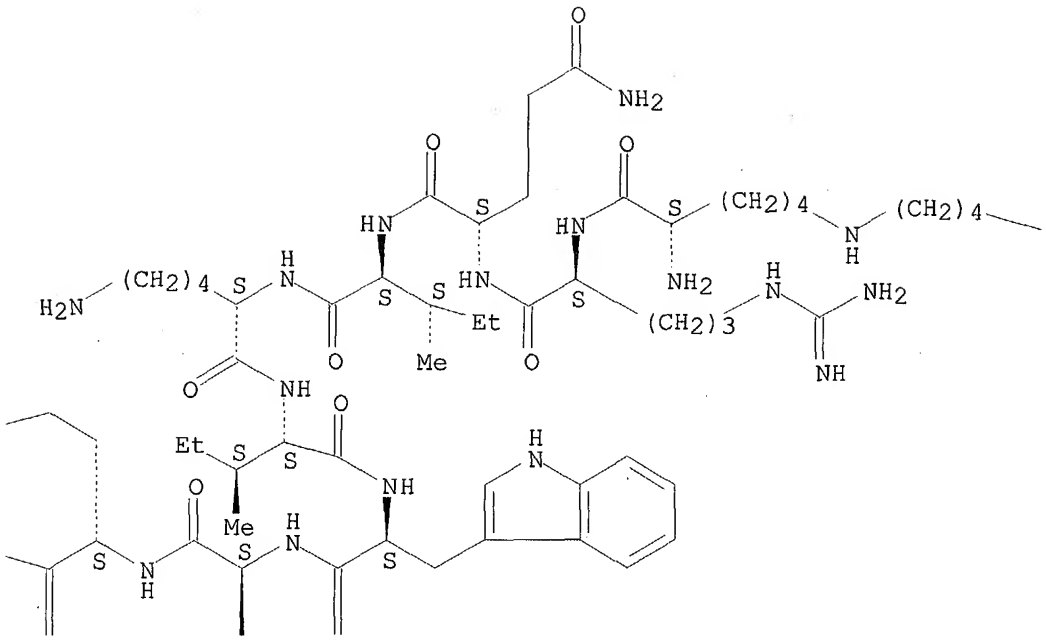
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C119 H195 N37 O23 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

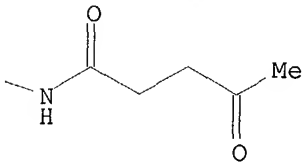
PAGE 1-A



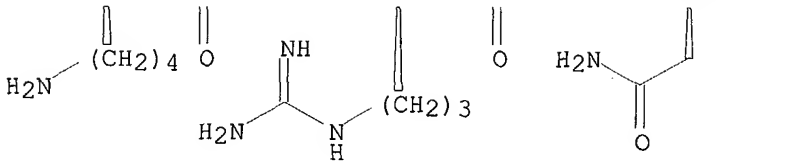
PAGE 1-B

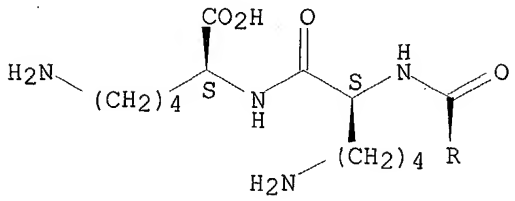


PAGE 1-C

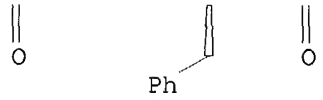


PAGE 2-A





PAGE 2-B



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 133:292464

L11 ANSWER 21 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **264882-70-4** REGISTRY
CN L-Lysine, N-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-.beta.-alanyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl-(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 37: PN: WO0029427 PAGE: 23 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17
NTE modified (modifications unspecified)

type	------ location ------		description
uncommon	Bal-1	-	-
modification	Bal-1	-	undetermined modification

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000029427 claimed PAGE 23

SEQ 1 XRQIKIWFQN RRMKWKK
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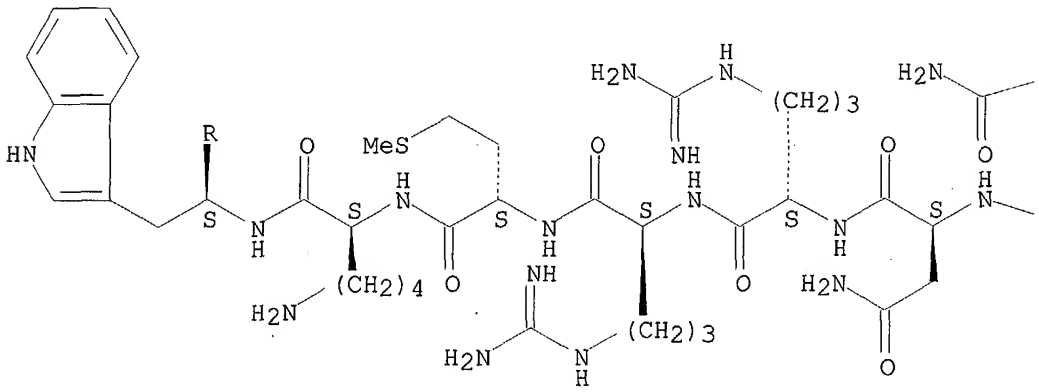
HITS AT: 2-17

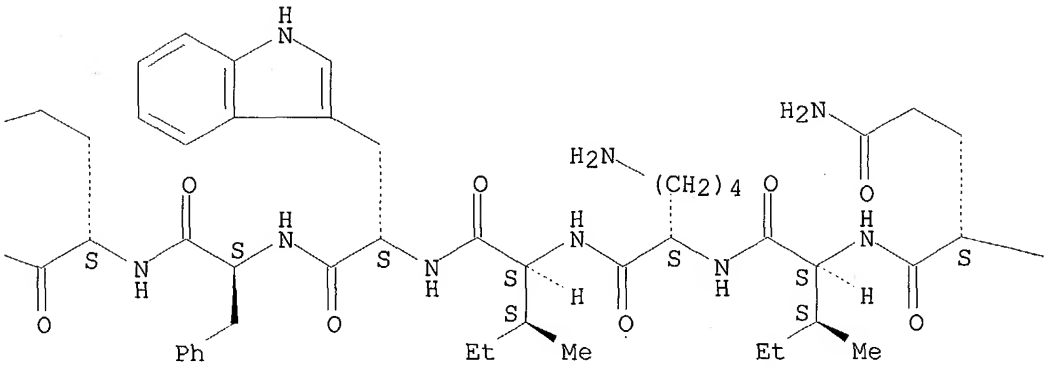
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C128 H183 N35 O27 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

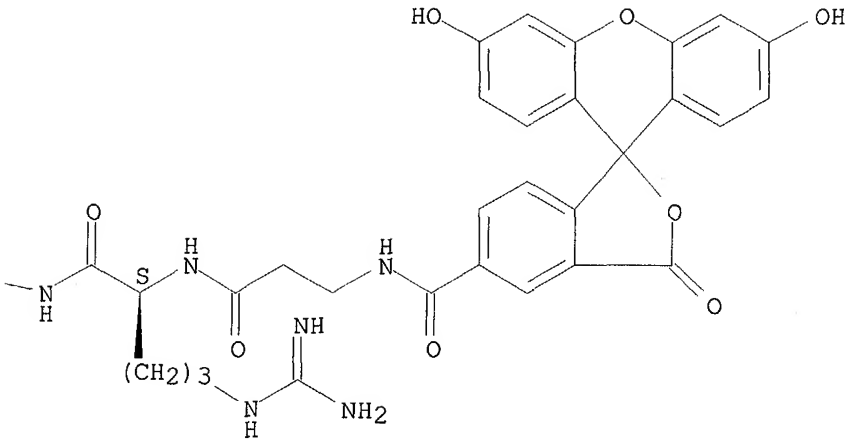
PAGE 1-A



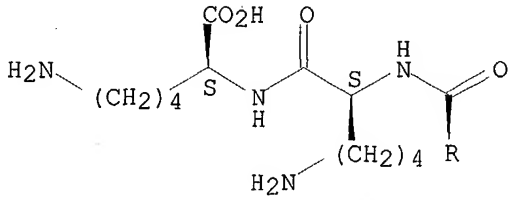
PAGE 1-B



PAGE 1-C



PAGE 2-A



2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 133:9081

REFERENCE 2: 132:308631

L11 ANSWER 22 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **264882-32-8** REGISTRY
CN L-Lysinamide, N-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-.beta.-alanyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1: PN: WO0029427 TABLE: 1 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17
NTE modified (modifications unspecified)

type	------ location ------		description
uncommon	Bal-1	-	-

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2000029427
	claimed
	TABLE 1

SEQ 1 XRQIKIWFQN RRMKWKK
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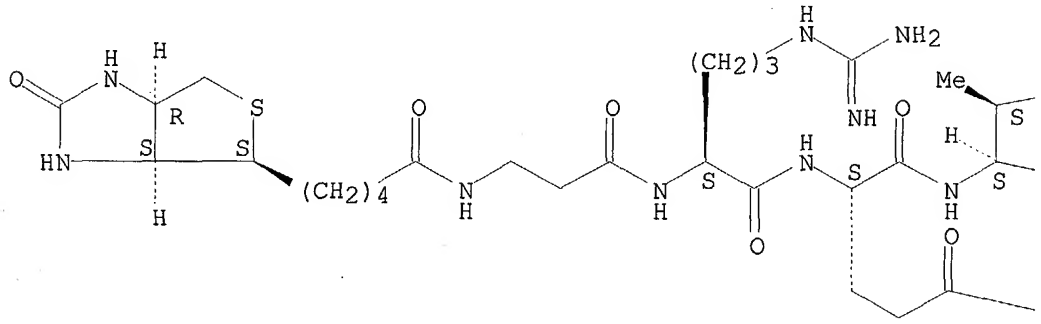
HITS AT: 2-17

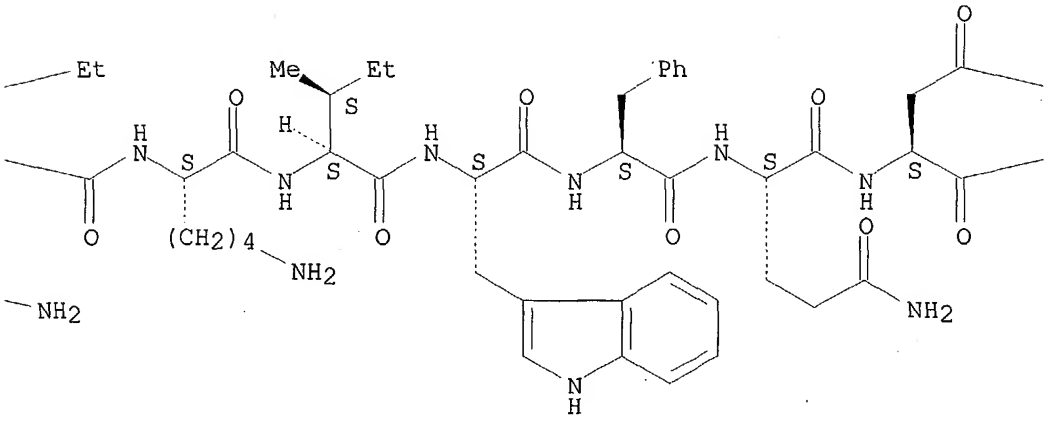
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C117 H188 N38 O22 S2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

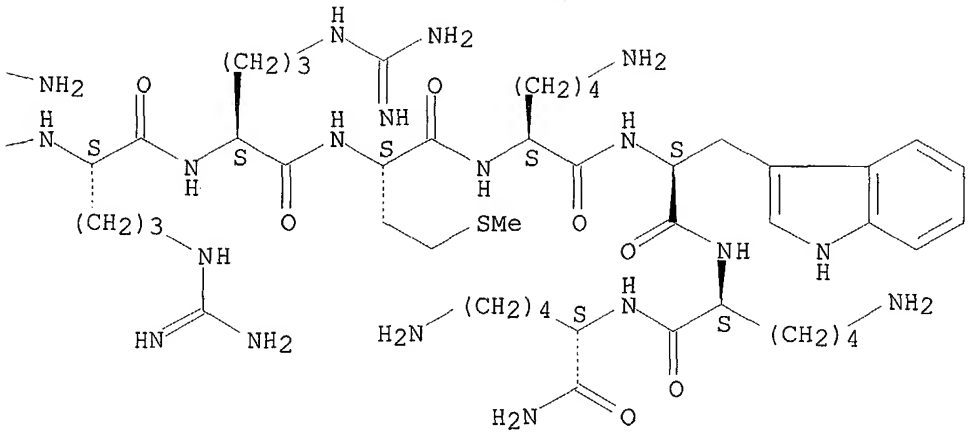
PAGE 1-A



PAGE 1-B



PAGE 1-C



2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 133:9081

REFERENCE 2: 132:308631

L11 ANSWER 23 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **254893-86-2** REGISTRY
CN L-Lysinamide, L-cysteinyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17
NTE modified

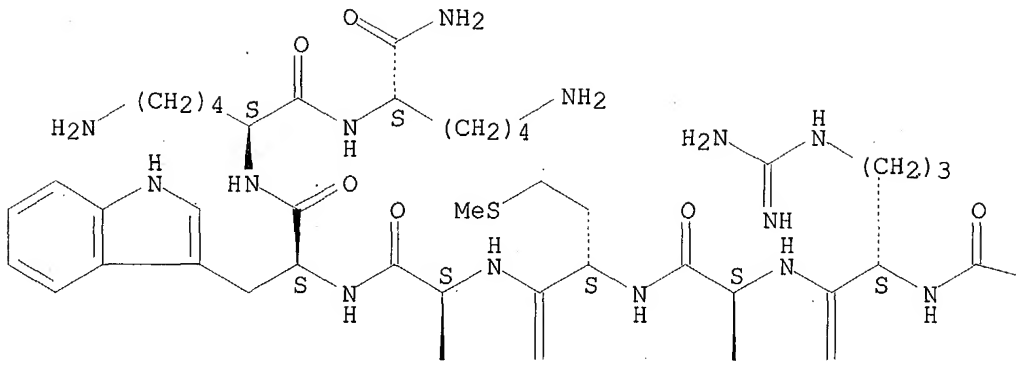
type	------ location ------		description
terminal mod.	Lys-17	-	C-terminal amide

SEQ 1 CRQIKIWFQN RRMKWKK
========== =======
HITS AT: 2-17

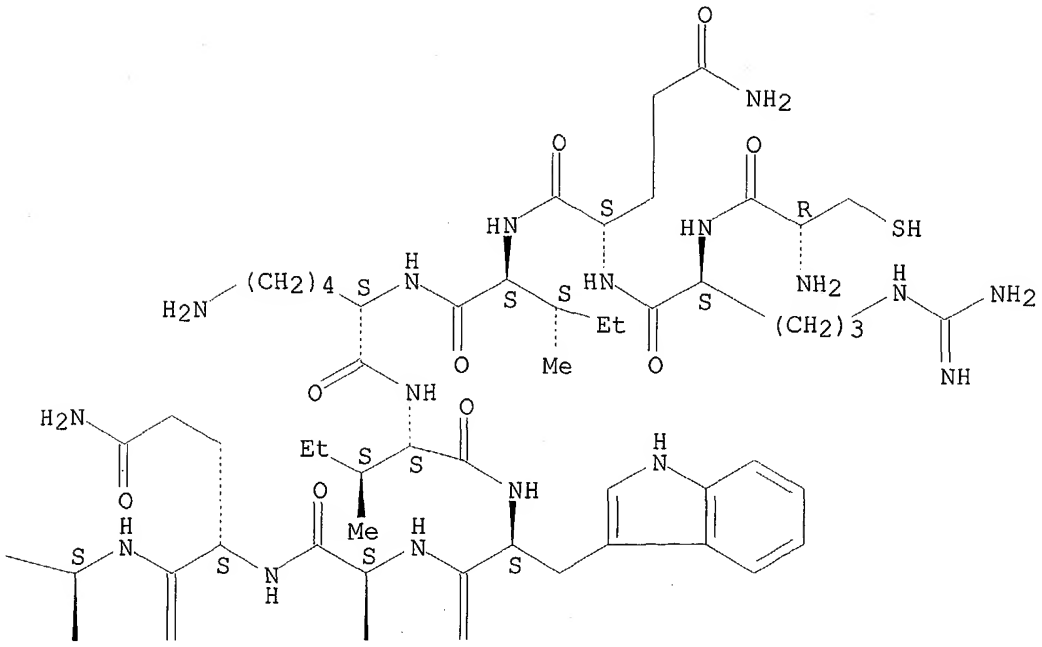
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C107 H174 N36 O20 S2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A

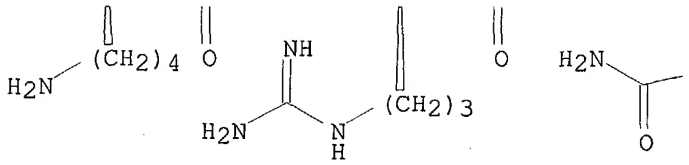


PAGE 1-B



Searched by M. Smith

PAGE 2-A



PAGE 2-B

2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 138:44612

REFERENCE 2: 132:93654

L11 ANSWER 24 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **221694-31-1** REGISTRY
CN L-Lysine, N2,N6-bis(L-valyl-L-prolyl-L-prolyl-L-prolyl-L-valyl-L-prolyl-L-prolyl-L-arginyl-L-arginyl-L-arginyl)-L-lysyl-6-aminohexanoyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
SQL 38,28,10
NTE multichain

type	------ location ------		description
bridge	Lys-11	- Arg-10'	amide bridge
uncommon	Oaa-12	-	-

SEQ 1 VPPPVPPRRR KXRQIKIWFQ NRRMKWKK
========== ========
HITS AT: 13-28

SEQ 1 VPPPVPPRRR
MF C222 H369 N75 O42 S
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 130:261569

L11 ANSWER 25 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **220337-24-6** REGISTRY
CN L-Lysinamide, 3-[(3-nitro-2-pyridinyl)dithio]-L-alanyl-L-arginyl-L-

glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 17
NTE modified

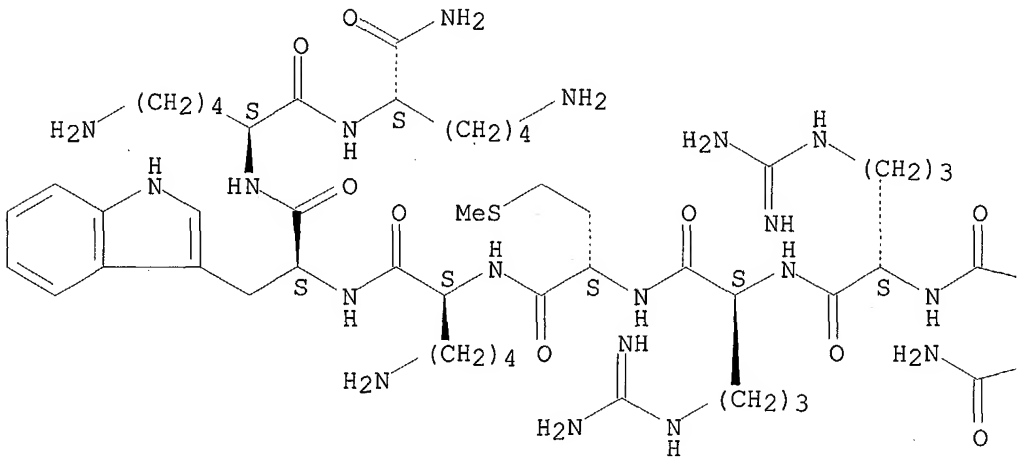
type	------ location ------		description
terminal mod.	Lys-17	-	C-terminal amide
modification	Cys-1	-	(3-nitro-2-pyridinyl) thio

SEQ 1 CRQIKIWFQN RRMKWKK
========= =======
HITS AT: 2-17

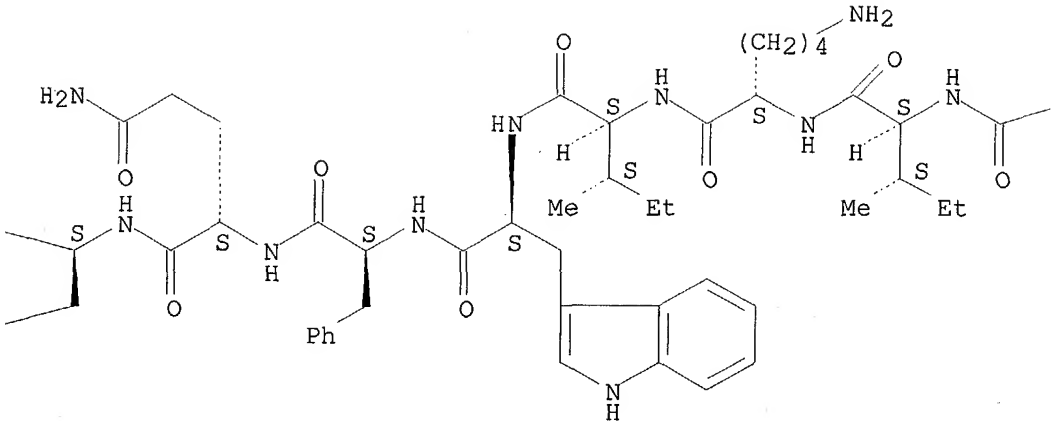
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C112 H176 N38 O22 S3
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

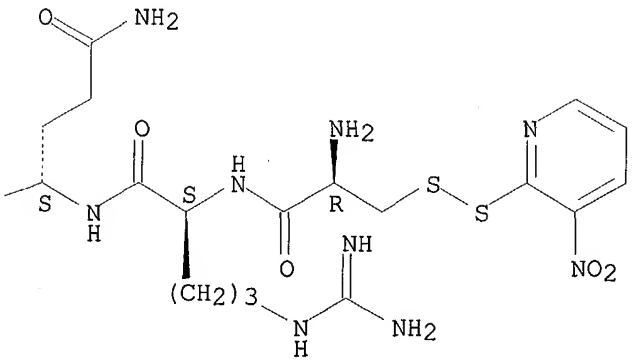
PAGE 1-A



PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 130:163975

L11 ANSWER 26 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **214556-79-3** REGISTRY
CN L-Lysinamide, L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 5: PN: WO0050591 SEQID: 5 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 16
NTE modified

type	------ location ------	description

terminal mod.	Lys-16	-	C-terminal amide

PATENT ANNOTATIONS (PNTE):

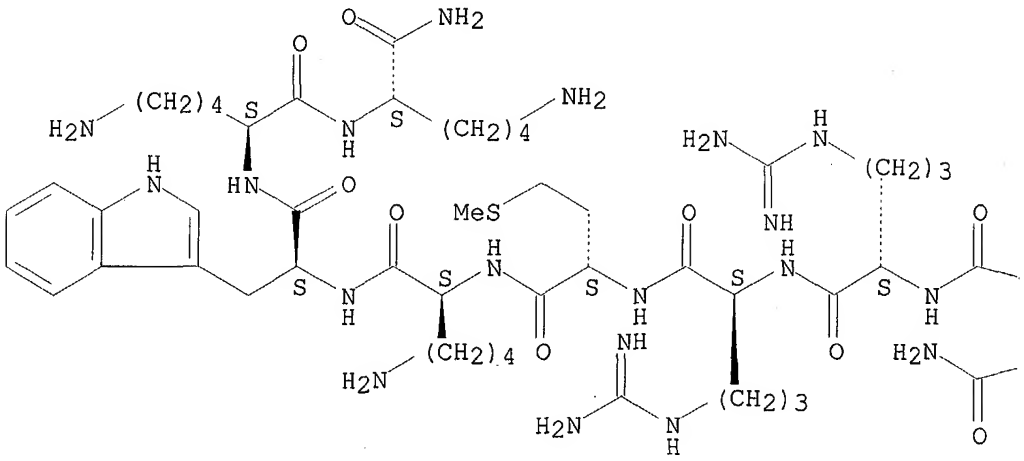
Sequence Source	Patent Reference
Not Given	WO2000050591 claimed SEQID 5

SEQ 1 RQIKIWFQNR RMKWKK
HITS AT: 1-16

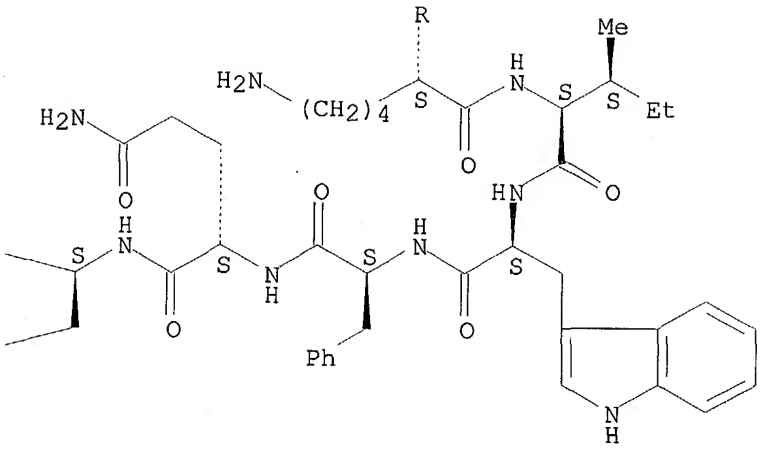
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C104 H169 N35 O19 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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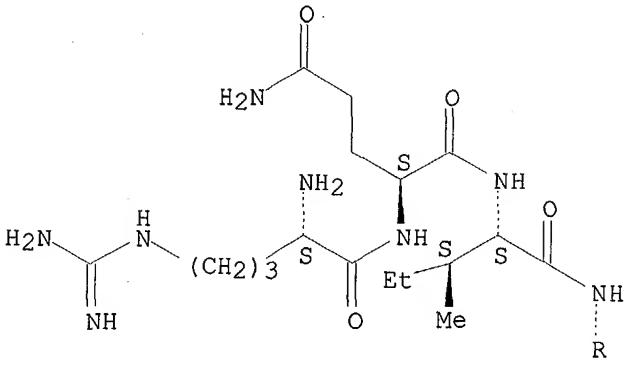


4 REFERENCES IN FILE CA (1957 TO DATE)
4 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 133:187960

REFERENCE 2: 132:93654

REFERENCE 3: 130:163975

REFERENCE 4: 129:310817

L11 ANSWER 27 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **209323-98-8** REGISTRY
CN L-Lysine, L-cysteinyl-L-arginyl-L-glutaminyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 11: PN: WO03024997 SEQID: 11 claimed protein
CN 8: PN: WO02057413 SEQID: 8 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 17

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2002057413
	claimed
	SEQID 8

SEQ 1 CRQIKIWFQN RRMKWKK
========= =======

HITS AT: 2-17

RELATED SEQUENCES AVAILABLE WITH SEQLINK

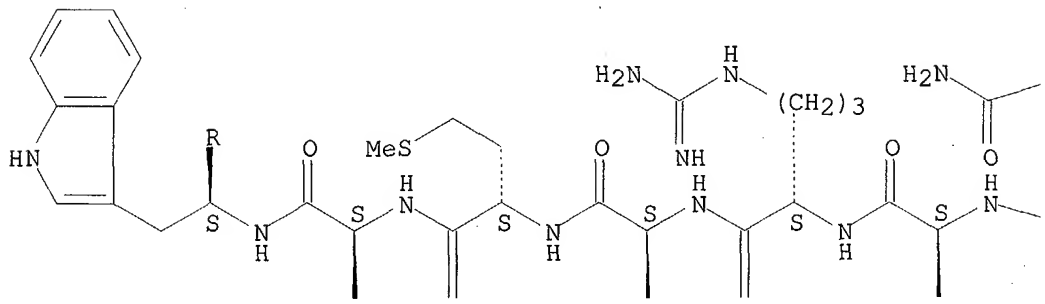
MF C107 H173 N35 O21 S2

SR CA

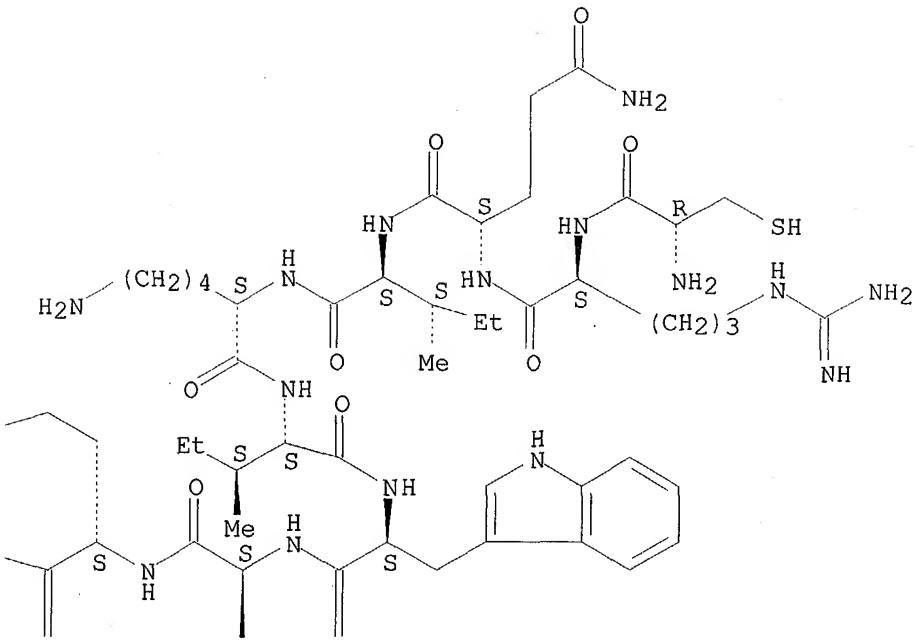
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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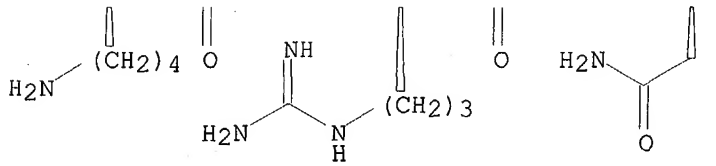

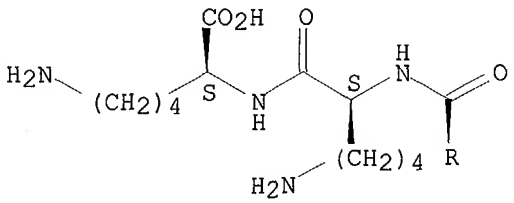

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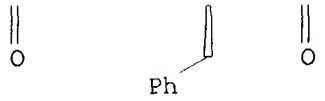

7 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

Searched by M. Smith

7 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 139:26448

REFERENCE 2: 138:282334

REFERENCE 3: 137:103935

REFERENCE 4: 134:371759

REFERENCE 5: 132:93654

REFERENCE 6: 130:57118

REFERENCE 7: 129:78374

L11 ANSWER 28 OF 28 REGISTRY COPYRIGHT 2003 ACS
RN **188842-14-0** REGISTRY
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OTHER NAMES:
CN 10: PN: WO0109312 PAGE: 33 unclaimed sequence
CN 10: PN: WO0220768 SEQID: 10 claimed sequence
CN 113: PN: WO03033675 SEQID: 113 unclaimed sequence
CN 11: PN: WO02088318 PAGE: 42 unclaimed sequence
CN 133: PN: WO0220769 SEQID: 122 unclaimed sequence
CN 14: PN: WO0069908 PAGE: 21 unclaimed sequence
CN 167: PN: WO0236142 SEQID: 19 unclaimed sequence
CN 16: PN: WO0025804 SEQID: 7 claimed sequence
CN 19: PN: WO0115511 SEQID: 19 unclaimed sequence
CN 19: PN: WO02070702 PAGE: 107 unclaimed sequence
CN 19: PN: WO03033701 PAGE: 78 claimed sequence
CN 1: PN: DE19933492 PAGE: 5 claimed protein
CN 1: PN: WO0075175 PAGE: 7 unclaimed sequence
CN 1: PN: WO02092788 PAGE: 28 unclaimed sequence
CN 1: PN: WO02098365 PAGE: 16 claimed protein
CN 1: PN: WO0218572 PAGE: 7 unclaimed sequence
CN 1: PN: WO0227031 PAGE: 10 claimed sequence
CN 1: PN: WO03004600 SEQID: 1 claimed protein
CN 1: PN: WO03006065 PAGE: 15 claimed protein
CN 20: PN: WO0231144 SEQID: 23 unclaimed sequence
CN 21: PN: WO0063246 SEQID: 33 claimed protein
CN 21: PN: WO0078803 PAGE: 16 unclaimed sequence
CN 26: PN: WO0062067 TABLE: 2 unclaimed sequence
CN 28: PN: US20020160002 PAGE: 28 unclaimed sequence
CN 2: PN: FR2829940 SEQID: 2 unclaimed sequence
CN 2: PN: FR2830016 SEQID: 2 unclaimed sequence
CN 2: PN: US20020151004 PAGE: 25 claimed protein
CN 2: PN: US20020192799 SEQID: 3 claimed protein
CN 2: PN: WO0059939 SEQID: 9 claimed protein
CN 2: PN: WO02057436 PAGE: 111 claimed sequence
CN 2: PN: WO02062823 SEQID: 2 claimed protein
CN 2: PN: WO02078600 SEQID: 3 claimed protein
CN 2: PN: WO0239947 SEQID: 6 unclaimed sequence
CN 30: PN: US20030054000 SEQID: 10 unclaimed sequence
CN 339-354-Protein (Drosophila melanogaster clone 909 gene Antennapedia reduced)
CN 33: PN: WO0168678 SEQID: 38 unclaimed sequence

CN 3: PN: WO9966061 SEQID: 4 unclaimed protein
CN 4: PN: US20010029024 PAGE: 42 unclaimed sequence
CN 4: PN: WO0063366 SEQID: 4 unclaimed sequence
CN 4: PN: WO02094185 SEQID: 14 unclaimed sequence
CN 4: PN: WO0250102 SEQID: 12 unclaimed sequence
CN 5: PN: US6057104 SEQID: 4 unclaimed protein
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CN 6: PN: WO0044771 SEQID: 6 unclaimed sequence
CN 9: PN: WO02088370 SEQID: 10 claimed protein
CN Penetratin
CN Penetratin 1
CN PN: US5962415 SEQID: 7 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 16

PATENT ANNOTATIONS (PNTE):

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	US2001029024 unclaimed PAGE 42
	US5962415 claimed SEQID 7
	US6057104 unclaimed SEQID 4
	WO2000025804 claimed SEQID 7
	WO2000044771 unclaimed SEQID 6
	WO2000059939 claimed SEQID 9
	WO2000062067 unclaimed TABLE 2
	WO2000063246 claimed SEQID 33
	WO2000063366 unclaimed SEQID 4

WO2000069908 unclaimed PAGE 21
WO2000075175 unclaimed PAGE 7
WO2000078803 unclaimed PAGE 16
WO2001009312 unclaimed PAGE 33
WO2001015511 unclaimed SEQID 19
WO2001068678 unclaimed SEQID 38
WO2002018572 unclaimed PAGE 7
WO2002020768 claimed SEQID 10
WO2002020769 unclaimed SEQID 122
WO2002027031 claimed PAGE 10
WO2002031144 unclaimed SEQID 23
WO2002036142 unclaimed SEQID 19
WO2002039947 unclaimed SEQID 6
WO2002050102 unclaimed SEQID 12
WO9966061 unclaimed SEQID 4

SEQ 1 RQIKIWFQNR RMKWKK
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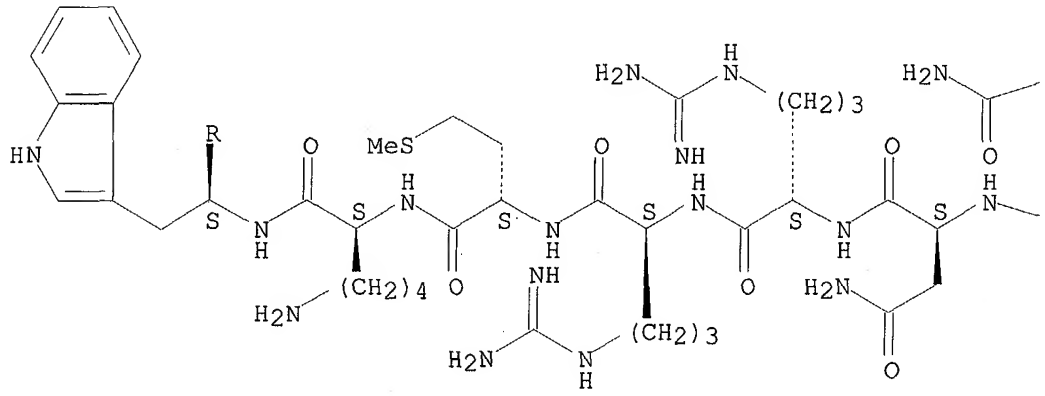
HITS AT: 1-16

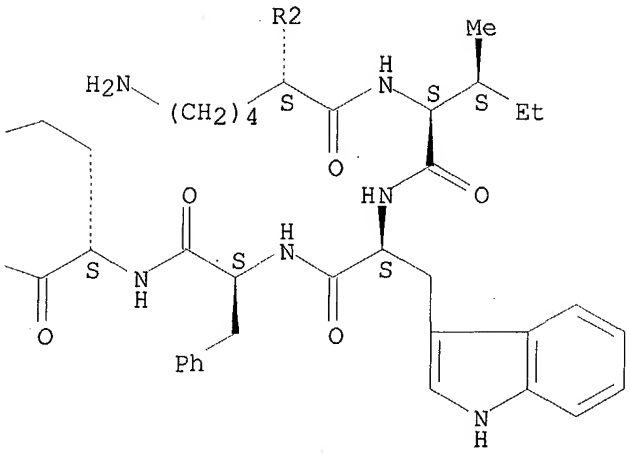
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C104 H168 N34 O20 S
SR CA
LC STN Files: BIOSIS, CA, CAPLUS, DRUGNL, DRUGUPDATES, MRCK*, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.

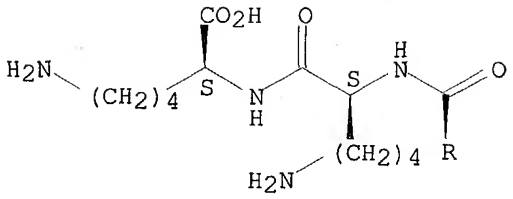
PAGE 1-A

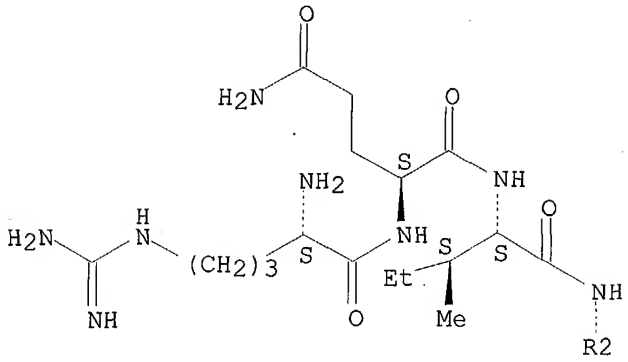


PAGE 1-B



PAGE 2-A





118 REFERENCES IN FILE CA (1957 TO DATE)
27 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
122 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 139:30785

REFERENCE 2: 138:397977

REFERENCE 3: 138:397865

REFERENCE 4: 138:396192

REFERENCE 5: 138:362272

REFERENCE 6: 138:350146

REFERENCE 7: 138:332936

REFERENCE 8: 138:332863

REFERENCE 9: 138:316297

REFERENCE 10: 138:298122

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: July 15, 2003, 09:43:21 ; Search time 70 Seconds
(without alignments)
30.457 Million cell updates/sec

Title: US-10-031-505-1
Perfect score: 92
Sequence: 1 RQIKIWFQNRRMKWKK 16

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

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Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	92	100.0	16	18	AAW33410	D-form peptide 43-
3	92	100.0	16	18	AAW33407	Peptide 43-58 of h
4	92	100.0	16	19	AAW82958	Oestrogen receptor
5	92	100.0	16	19	AAW71270	Antennapedia pepti
6	92	100.0	16	19	AAW71316	Antennapedia pepti
7	92	100.0	16	19	AAW30508	Drosophila membran
8	92	100.0	16	19	AAW56397	Preferred signal s
9	92	100.0	16	20	AAY52102	Peptide from the t
10	92	100.0	16	20	AAY13509	Signal sequence of
11	92	100.0	16	20	AAY00859	Peptide pAntp(43-5
12	92	100.0	16	20	AAW91046	Internalization se
13	92	100.0	16	21	AAB03927	Internalisation mo
14	92	100.0	16	21	AAB19251	Fragment of the An
15	92	100.0	16	21	AAB27060	Beta-catenin deriv
16	92	100.0	16	21	AAB29574	Antennapedia resid
17	92	100.0	16	21	AAB35694	Peptide associated
18	92	100.0	16	21	AAB29423	ANTP peptide, SEQ
19	92	100.0	16	21	AAB22025	Membrane penetrati
20	92	100.0	16	21	AAB10343	Peptide AB fragmen
21	92	100.0	16	21	AAY93178	Protegrin-like pep
22	92	100.0	16	21	AAY93954	Peptide used to co
23	92	100.0	16	21	AAY93551	Amino acid sequenc
24	92	100.0	16	21	AAY93667	Peptide which may
25	92	100.0	16	21	AAY87920	Drosophila sp. ant
26	92	100.0	16	21	AAY71008	Drosophila antenna
27	92	100.0	16	21	AAY51167	Drosophila sp. der
28	92	100.0	16	21	AAY51212	Antennapedia prote
29	92	100.0	16	21	AAY67966	Carboxyfluorescein
30	92	100.0	16	21	AAY55818	Signal seqeunce fo
31	92	100.0	16	22	AAE12205	Membrane transport
32	92	100.0	16	22	AAB60004	Internalising pept
33	92	100.0	16	22	AAU06064	Drosophila Antenna
34	92	100.0	16	22	AAE02974	Protein transducti
35	92	100.0	16	22	AAU00813	Fruit fly Antennap
36	92	100.0	16	22	AAB73091	Rheumatoid arthrit
37	92	100.0	16	22	AAB60671	Antennapedia-deriv
38	92	100.0	16	22	AAB70753	Cell membrane tran
39	92	100.0	16	22	AAB66996	Antennapedia homeo
40	92	100.0	16	22	AAB49914	HIF-1alpha-VHL int
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42	92	100.0	16	23	AAE23684	Fluorescently labe
43	92	100.0	16	23	ABB83153	Transduction domai
44	92	100.0	16	23	ABG60447	Selective targetin
45	92	100.0	16	23	AAU78345	Antennapedia homeo

ALIGNMENTS

RESULT 1

AAW45974
ID AAW45974 standard; peptide; 16 AA.
XX
AC AAW45974;
XX
DT 01-JUL-1998 (first entry)
XX
DE Cysteine protease inhibiting peptide for preventing cell death.
XX
KW Neuronal cell death; neurodegenerative disorder; inhibition;
KW cysteine protease; cardiovascular; liver disease.
XX
OS Synthetic.
XX
FH Key   Location/Qualifiers
FT Modified-site   1
FT   /note= "N-3-nitro-2-pyridyl-sulphenyl-Arg"
XX
PN WO9735876-A1.
XX
PD 02-OCT-1997.
XX
PF 04-MAR-1997; 97WO-US04158.
XX
PR 04-MAR-1996; 96US-0610220.
XX
PA (UYCO) UNIV COLUMBIA NEW YORK.
XX
PI Troy CM;
XX
DR WPI; 1997-489561/45.
XX
PT New cysteine protease inhibiting peptide(s) for preventing cell
PT death - in cases of neuro:degenerative, cardiovascular and liver
PT diseases, and their peptidomimetics, and general method for
PT identifying enzyme inhibiting peptides
XX
PS Claim 8; Page 68; 112pp; English.
XX
CC This sequence represents a specifically claimed peptide of the formula:
CC V-(AA1)n-Cys(V'')-(AA2)m-V' (I), in which n and m = 0-5, totalling 2-5;
CC if n =1, AA1 = Ala; if n = 2, (AA1)n = Gln-Ala; and if n =3 or more,
CC (AA1)n = (X)p-Gln-Ala; X = any amino acid; p = 1-3, depending on value
CC of n; if m = 1, AA2 = Arg; if m =2, (AA2)n = Arg-Gly; if m = 3 or more,
CC (AA2)n = Arg-Gly-(X)q; q = 1-3, depending on value of m; V, V' and V'',
CC any or all of which may be absent, = agent able to direct the compound
CC to a specific cell. The peptides are inhibitors of cysteine proteases,
CC specifically interleukin-1 beta converting enzyme (ICE). They inhibit
CC death of cells, particularly in humans, and can be used to treat
CC neurodegenerative diseases (e.g. ageing, Alzheimer's, Machado-Joseph,
CC Parkinson's or Huntington's diseases, multiple sclerosis, muscular
CC dystrophy, stroke), cardiovascular disease and liver disorders.
CC The peptides should be more specific than pseudosubstrate inhibitors.
XX
SQ Sequence 16 AA;

Query Match 100.0%; Score 92; DB 18; Length 16;

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  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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              ||||||||||||||||
Db          1 RQIKIWFQNRRMKWKK 16


RESULT 8
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ID   AAW56397 standard; peptide; 16 AA.
XX
AC   AAW56397;
XX
DT   05-AUG-1998  (first entry)
XX
DE   Preferred signal sequence of the invention.
XX
KW   Signal peptide; nuclear localisation signal; NLS;
KW   immunosuppressive activity; inhibition; nuclear translocation inhibitor;
KW   nuclear translocation; treatment; immune disorder; autoimmune disease;
KW   hypersensitivity; sepsis; prevention; septic shock; antiviral agent;
KW   tumour growth suppressor.
XX
OS   Unidentified.
XX
PN   WO9811907-A.
XX
PD   26-MAR-1998.
XX
PF   15-SEP-1997;   97WO-US16217.
XX
PR   12-SEP-1997;   97US-0928958.
PR   20-SEP-1996;   96US-0026978.
XX
PA   (BRIM ) BRISTOL-MYERS SQUIBB CO.
XX
PI   Blake J,  Cleaveland JS,  Haffar OK,  Nadler SG;
XX
DR   WPI; 1998-217028/19.
XX
PT   Nuclear translocation inhibitor polypeptides - comprising signal
PT   sequence for delivery through the cytoplasmic membrane and at least
PT   2 nuclear localisation sequences
XX
PS   Claim 5; Page 43; 69pp; English.
XX
CC   Peptides AAW56397-99 represent preferred signal sequences of the
CC   invention. They are used to construct the nuclear translocation
CC   inhibitor polypeptides of the invention. Nuclear translocation inhibitor
CC   polypeptides comprise a signal sequence peptide capable of delivering
CC   the polypeptide through the cytoplasmic membrane into a cell, and at
CC   least 2 nuclear localisation signals (NLSs). The polypeptides can be
CC   used to inhibit nuclear translocation of a cellular protein. In
CC   addition, since the nuclear translocation of certain cellular peptides is
CC   required for the host organism to mount an immune response, the
```

CC polypeptide inhibitors are useful as immunosuppression agents. The
CC polypeptides can therefore be used for the treatment of immune disorders
CC including autoimmune diseases. The polypeptides can also be used for
CC treating physical symptoms manifested by responses to allergens which can
CC initiate a state of hypersensitivity, for the treatment of sepsis and in
CC the prevention of septic shock, antiviral agents, tumour growth
CC suppressors, and for transcriptionally modulating the expression of
CC cellular genes.
XX
SQ Sequence 16 AA;

Query Match 100.0%; Score 92; DB 19; Length 16;
Best Local Similarity 100.0%; Pred. No. 5e-07;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 RQIKIWFQNRRMKWKK 16
              ||||||||||||||||
Db          1 RQIKIWFQNRRMKWKK 16
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RESULT 11
AAY00859
ID AAY00859 standard; peptide; 16 AA.
XX
AC AAY00859;
XX
DT 20-MAY-1999 (first entry)
XX
DE Peptide pAntp(43-58) used in membrane-permeable construct.
XX
KW Membrane-permeable construct; lipid membrane; membrane transport;
KW oligonucleotide delivery; cancer therapy; signal transduction; inhibitor;
KW gene therapy; transcription; translation; expression; replication.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 16
FT /note= "amidated"
XX
PN WO9905302-A1.
XX
PD 04-FEB-1999.
XX
PF 16-JUL-1998; 98WO-US14761.
XX
PR 24-JUL-1997; 97US-0053678.
XX
PA (PEKE) PERKIN-ELMER CORP.
XX
PI Bartfai T, Hallbrink M, Langel U, Pooga M, Saar K;
PI Valkna A;
XX
DR WPI; 1999-142952/12.
XX
PT New membrane-permeable constructs - comprise a peptide linked by a

PT labile bond to a nucleic acid analogue capable of hybridising with
PT an intracellular polynucleotide
XX
PS Disclosure; Page 26; 60pp; English.
XX
CC This sequence represents a peptide used in the construct of the
CC invention. The construct is a membrane-permeable construct for transport
CC across a lipid membrane, which comprises: (a) a nucleic acid analogue
CC capable of hybridising with an intracellular polynucleotide (PN);
CC (b) a peptide; and (c) a labile bond linking the nucleic acid analogue
CC and the peptide. The membrane-permeable constructs can be used for
CC delivery of oligonucleotides, nucleic acids and nucleic acid analogues
CC into cells. They can be used for e.g. cancer therapy, signal transduction
CC studies, identifying new intracellular drug targets or gene therapy. They
CC can also be used for selectively inhibiting DNA transcription, RNA
CC translation, RNA or DNA expression, DNA replication, or an DNA or RNA
CC regulatory function of preselected DNA or RNA sequences in a living cell.
XX
SQ Sequence 16 AA;

Query Match 100.0%; Score 92; DB 20; Length 16;
Best Local Similarity 100.0%; Pred. No. 5e-07;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 RQIKIWFQNRRMKWKK 16
              ||||||||||||||||
Db          1 RQIKIWFQNRRMKWKK 16
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RESULT 14
AAB19251
ID AAB19251 standard; peptide; 16 AA.
XX
AC AAB19251;
XX
DT 19-FEB-2001 (first entry)
XX
DE Fragment of the Antennapedia protein from Drosophila.
XX
KW Antennapedia protein; translocating protein; cellular process;
KW protein delivery.
XX
OS Drosophila sp.
XX
PN WO200058488-A2.
XX
PD 05-OCT-2000.
XX
PF 31-MAR-2000; 2000WO-US08571.
XX
PR 31-MAR-1999; 99US-0127467.
XX
PA (INVI-) INVITROGEN CORP.
XX
PI Dalby B, Bennett RP;
XX

DR WPI; 2000-611716/58.
XX
PT Modulating a cellular process by contacting a cell in culture with a
PT cell process modifying molecule attached to a translocating
PT polypeptide, useful for modulating expression of a target gene product
PT -
XX
PS Disclosure; Page 6; 59pp; English.
XX
CC The present sequence represents a fragment of the Antennapedia protein
CC (amino acids 43-58) from Drosophila. The fragment is used as a
CC translocating protein in the course of the invention. The specification
CC describes a method for modulating a cellular process and for delivery
CC of functional protein sequences. The method comprises contacting a cell
CC in culture under suitable conditions with a cell process modifying
CC molecule attached to a translocating polypeptide, where molecule is
CC translocated into the cell and interacts specifically with a responsive
CC target site. The method is useful for modulating a cellular process,
CC such as modulating expression of a target gene product, of a cell in
CC culture.
XX
SQ Sequence 16 AA;

Query Match 100.0%; Score 92; DB 21; Length 16;
Best Local Similarity 100.0%; Pred. No. 5e-07;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 RQIKIWFQNRRMKWKK 16
              ||||||||||||||||
Db          1 RQIKIWFQNRRMKWKK 16
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Search completed: July 15, 2003, 09:53:41
Job time : 71 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: July 15, 2003, 09:52:31 ; Search time 26 Seconds
(without alignments)
18.106 Million cell updates/sec

Title: US-10-031-505-1
Perfect score: 92
Sequence: 1 RQIKIWFQNRRMKWKK 16

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

Total number of hits satisfying chosen parameters: 262574

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	92	100.0	16	2	US-08-928-958-7	Sequence 7, Appli
2	92	100.0	16	2	US-08-810-540-3	Sequence 3, Appli
3	92	100.0	16	2	US-08-810-540-6	Sequence 6, Appli
4	92	100.0	16	2	US-09-072-429-7	Sequence 7, Appli
5	92	100.0	16	3	US-08-964-302A-6	Sequence 6, Appli
6	92	100.0	16	3	US-09-116-294-4	Sequence 4, Appli
7	92	100.0	16	3	US-08-964-614A-4	Sequence 4, Appli
8	92	100.0	16	3	US-08-849-486-1	Sequence 1, Appli
9	92	100.0	16	3	US-08-849-486-4	Sequence 4, Appli
10	92	100.0	16	4	US-09-208-966-54	Sequence 54, Appl
11	92	100.0	16	4	US-09-308-935-8	Sequence 8, Appli

12	92	100.0	16	4	US-09-441-416A-6	Sequence 6, Appli
13	92	100.0	16	4	US-09-296-089-33	Sequence 33, Appl
14	92	100.0	16	4	US-09-419-826-35	Sequence 35, Appl
15	92	100.0	16	4	US-09-302-305C-10	Sequence 10, Appl
16	92	100.0	18	3	US-08-838-545-20	Sequence 20, Appl
17	92	100.0	18	4	US-09-349-532-20	Sequence 20, Appl
18	92	100.0	24	4	US-09-419-826-34	Sequence 34, Appl
19	92	100.0	27	3	US-09-051-934-51	Sequence 51, Appl
20	92	100.0	27	3	US-09-051-934-52	Sequence 52, Appl
21	92	100.0	27	4	US-09-040-725A-2	Sequence 2, Appli
22	92	100.0	34	4	US-09-347-504-79	Sequence 79, Appl
23	92	100.0	61	2	US-08-202-044-3	Sequence 3, Appli
24	92	100.0	61	4	US-08-751-344B-3	Sequence 3, Appli
25	92	100.0	61	4	US-08-751-344B-6	Sequence 6, Appli
26	92	100.0	61	4	US-08-751-344B-9	Sequence 9, Appli
27	91	98.9	61	4	US-08-751-344B-7	Sequence 7, Appli
28	87	94.6	15	2	US-08-810-540-4	Sequence 4, Appli
29	87	94.6	42	4	US-08-751-344B-4	Sequence 4, Appli
30	87	94.6	283	1	US-08-583-672-2	Sequence 2, Appli
31	87	94.6	283	2	US-08-202-044-2	Sequence 2, Appli
32	87	94.6	283	4	US-08-751-344B-2	Sequence 2, Appli
33	87	94.6	284	2	US-08-320-148B-2	Sequence 2, Appli
34	87	94.6	284	3	US-08-589-028-6	Sequence 6, Appli
35	87	94.6	284	3	US-08-784-582-6	Sequence 6, Appli
36	87	94.6	284	4	US-08-785-271-6	Sequence 6, Appli
37	87	94.6	284	4	US-09-031-898-2	Sequence 2, Appli
38	87	94.6	302	2	US-08-203-532F-4	Sequence 4, Appli
39	87	94.6	302	3	US-08-950-860-16	Sequence 16, Appl
40	87	94.6	302	4	US-09-078-465-4	Sequence 4, Appli
41	87	94.6	302	5	PCT-US95-01882A-4	Sequence 4, Appli
42	87	94.6	303	2	US-08-203-532F-2	Sequence 2, Appli
43	87	94.6	303	4	US-09-078-465-2	Sequence 2, Appli
44	87	94.6	303	5	PCT-US95-01882A-2	Sequence 2, Appli
45	86	93.5	16	3	US-08-849-486-5	Sequence 5, Appli

ALIGNMENTS

```
RESULT 1
US-08-928-958-7
; Sequence 7, Application US/08928958
; Patent No. 5877282
;  GENERAL INFORMATION:
;    APPLICANT:  NADLER, STEVEN G.
;    APPLICANT:  CLEAVELAND, JEFFREY S.
;    APPLICANT:  BLAKE, JAMES
;    APPLICANT:  HAFFAR, OMAR K.
;    TITLE OF INVENTION:  PEPTIDE INHIBITORS OF NUCLEAR PROTEIN
;    TITLE OF INVENTION:  TRANSLOCATION HAVING NUCLEAR LOCALIZATION SEQUENCES
AND
;    TITLE OF INVENTION:  METHODS OF USE THEREOF
;    NUMBER OF SEQUENCES:  24
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  ROBINS & ASSOCIATES
;      STREET:  90 MIDDLEFIELD ROAD, SUITE 200
;      CITY:  MENLO PARK
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;       STATE:  CA
;       COUNTRY:  USA
;       ZIP:  94025
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/928,958
;       FILING DATE:  12-SEP-1997
;       CLASSIFICATION:  514
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 60/026978
;       FILING DATE:  20-SEP-1996
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  ROBINS, ROBERTA L.
;       REGISTRATION NUMBER:  33,208
;       REFERENCE/DOCKET NUMBER:  5998-0019
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (650) 325-7812
;       TELEFAX:  (650) 325-7823
;   INFORMATION FOR SEQ ID NO:  7:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  16 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  peptide
US-08-928-958-7

  Query Match             100.0%;  Score 92;  DB 2;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-07;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 RQIKIWFQNRRMKWKK 16
              ||||||||||||||||
Db          1 RQIKIWFQNRRMKWKK 16



RESULT 6
US-09-116-294-4
; Sequence 4, Application US/09116294
; Patent No. 6025140
; GENERAL INFORMATION:
;  APPLICANT: Langel, Ulo
;  APPLICANT: Bartfai, Tamas
;  APPLICANT: Pooga, Margus
;  APPLICANT: Valkna, Andres
;  APPLICANT: Saar, Kulliki
;  APPLICANT: Hallbrink, Mattias
;  TITLE OF INVENTION: Conjugated Constructs of Peptides and
;  TITLE OF INVENTION: Nucleic Acid Analogs, and Their Transport Across
Membranes
;  FILE REFERENCE: 4394
;  CURRENT APPLICATION NUMBER: US/09/116,294
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;  CURRENT FILING DATE: 1998-07-16
;  EARLIER APPLICATION NUMBER: 60/052,678
;  EARLIER FILING DATE: 1997-07-24
;  NUMBER OF SEQ ID NOS: 16
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 4
;   LENGTH: 16
;   TYPE: PRT
;   ORGANISM: drosphila
US-09-116-294-4

  Query Match             100.0%;  Score 92;  DB 3;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-07;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 RQIKIWFQNRRMKWKK 16
              ||||||||||||||||
Db          1 RQIKIWFQNRRMKWKK 16



RESULT 8
US-08-849-486-1
; Sequence 1, Application US/08849486
; Patent No. 6080724
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  PEPTIDES WHICH CAN BE USED AS VECTORS
;    TITLE OF INVENTION:  FOR THE INTRACELLULAR ADDRESSING OF ACTIVE MOLECULES
;    NUMBER OF SEQUENCES:  10
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/849,486
;      FILING DATE:
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  FR 95 11714
;      FILING DATE:  05-OCT-1995
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-849-486-1

  Query Match             100.0%;  Score 92;  DB 3;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-07;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 RQIKIWFQNRRMKWKK 16
              ||||||||||||||||
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Db 1 RQIKIWFQNRRMKWKK 16

Search completed: July 15, 2003, 09:56:30
Job time : 27 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: July 15, 2003, 09:55:41 ; Search time 51 Seconds
(without alignments)
36.524 Million cell updates/sec

Title: US-10-031-505-1
Perfect score: 92
Sequence: 1 RQIKIWFQNRRMKWKK 16

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 445758 seqs, 116419773 residues

Total number of hits satisfying chosen parameters: 445758

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
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3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
5: /cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep:*
6: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
7: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
8: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
9: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*
10: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
11: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
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13: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	92	100.0	16	7	US-08-610-220A-9	Sequence 9, Appli
2	92	100.0	16	9	US-09-902-432-32	Sequence 32, Appl
3	92	100.0	16	9	US-10-007-363-3	Sequence 3, Appli

4	92	100.0	16	9	US-09-953-031A-10	Sequence 10, Appl
5	92	100.0	16	9	US-09-981-286A-3	Sequence 3, Appli
6	92	100.0	16	9	US-09-962-967A-6	Sequence 6, Appli
7	92	100.0	16	9	US-09-912-414-6	Sequence 6, Appli
8	92	100.0	16	9	US-10-071-512A-2	Sequence 2, Appli
9	92	100.0	16	9	US-09-775-052-54	Sequence 54, Appl
10	92	100.0	16	9	US-10-239-804-3	Sequence 3, Appli
11	92	100.0	16	9	US-10-077-555-3	Sequence 3, Appli
12	92	100.0	16	9	US-09-295-189-4	Sequence 4, Appli
13	92	100.0	16	9	US-10-209-421-29	Sequence 29, Appl
14	92	100.0	16	9	US-10-229-915-2	Sequence 2, Appli
15	92	100.0	16	9	US-10-185-084-3	Sequence 3, Appli
16	92	100.0	16	9	US-09-965-876A-1	Sequence 1, Appli
17	92	100.0	16	9	US-10-252-012-5	Sequence 5, Appli
18	92	100.0	16	9	US-10-013-815-19	Sequence 19, Appl
19	92	100.0	16	9	US-10-075-869-19	Sequence 19, Appl
20	92	100.0	16	9	US-10-136-738-10	Sequence 10, Appl
21	92	100.0	16	9	US-10-210-660-1	Sequence 1, Appli
22	92	100.0	16	9	US-10-210-660-25	Sequence 25, Appl
23	92	100.0	16	9	US-10-156-570A-21	Sequence 21, Appl
24	92	100.0	16	10	US-09-214-371-43	Sequence 43, Appl
25	92	100.0	16	10	US-09-780-070-38	Sequence 38, Appl
26	92	100.0	16	10	US-09-150-623-9	Sequence 9, Appli
27	92	100.0	16	10	US-09-731-023A-10	Sequence 10, Appl
28	92	100.0	16	10	US-09-854-204-1	Sequence 1, Appli
29	92	100.0	16	10	US-09-900-147-8	Sequence 8, Appli
30	92	100.0	16	10	US-09-792-480-29	Sequence 29, Appl
31	92	100.0	16	10	US-09-785-802A-2	Sequence 2, Appli
32	92	100.0	16	10	US-09-785-802A-5	Sequence 5, Appli
33	92	100.0	16	12	US-10-024-935-12	Sequence 12, Appl
34	92	100.0	17	9	US-10-209-421-30	Sequence 30, Appl
35	92	100.0	17	9	US-10-229-915-1	Sequence 1, Appli
36	92	100.0	17	9	US-10-210-660-17	Sequence 17, Appl
37	92	100.0	17	9	US-10-210-660-20	Sequence 20, Appl
38	92	100.0	17	9	US-10-210-660-22	Sequence 22, Appl
39	92	100.0	17	9	US-10-210-660-27	Sequence 27, Appl
40	92	100.0	17	10	US-09-854-204-19	Sequence 19, Appl
41	92	100.0	17	10	US-09-785-802A-3	Sequence 3, Appli
42	92	100.0	17	12	US-10-007-761-8	Sequence 8, Appli
43	92	100.0	18	10	US-09-785-802A-14	Sequence 14, Appl
44	92	100.0	19	9	US-09-949-474-7	Sequence 7, Appli
45	92	100.0	19	9	US-10-118-079-45	Sequence 45, Appl

ALIGNMENTS

RESULT 1
US-08-610-220A-9
; Sequence 9, Application US/08610220A
; Publication No. US20030099638A1
; GENERAL INFORMATION:
; APPLICANT: Troy, Carol M.
; TITLE OF INVENTION: COMPOUNDS WHICH PREVENT NEURONAL CELL
; TITLE OF INVENTION: DEATH AND USES THEREOF
; NUMBER OF SEQUENCES: 11
; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Cooper & Dunham LLP
; STREET: 1185 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/610,220A
; FILING DATE: MAR-04-1996
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: White, John P.
; REGISTRATION NUMBER: 28,678
; REFERENCE/DOCKET NUMBER: 48332/JPW/JML
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 212-278-0400
; TELEFAX: 212-391-0525
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 16 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-610-220A-9

Query Match 100.0%; Score 92; DB 7; Length 16;
Best Local Similarity 100.0%; Pred. No. 2.9e-07;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 RQIKIWFQNRRMKWKK 16
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Db 1 RQIKIWFQNRRMKWKK 16

Search completed: July 15, 2003, 10:04:41
Job time : 52 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: July 15, 2003, 09:50:26 ; Search time 15 Seconds
(without alignments)
102.543 Million cell updates/sec

Title: US-10-031-505-1
Perfect score: 92
Sequence: 1 RQIKIWFQNRRMKWKK 16

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters: 283224

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_73:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	92	100.0	33	2	S57235	antennapedia prote
2	92	100.0	42	2	I65241	homeotic protein H
3	92	100.0	45	2	PC1216	homeotic protein D
4	92	100.0	48	2	I51439	homeobox protein -
5	92	100.0	66	2	S15536	homeotic protein H
6	92	100.0	66	2	S15538	homeotic protein H
7	92	100.0	71	2	JC1161	homeotic protein 3
8	92	100.0	71	2	A60084	homeotic protein H
9	92	100.0	74	2	D34510	homeotic protein H
10	92	100.0	75	2	I51341	homeo box protein
11	92	100.0	75	2	S58852	homeotic protein S
12	92	100.0	76	2	C43559	homeotic protein R
13	92	100.0	78	2	I51342	homeo box protein

14	92	100.0	81	2	S47605	homeotic protein H
15	92	100.0	81	2	B29585	homeotic protein H
16	92	100.0	82	2	S08302	homeotic protein H
17	92	100.0	83	2	S47603	homeotic protein H
18	92	100.0	83	2	S50066	homeotic protein H
19	92	100.0	86	2	A34510	homeotic protein H
20	92	100.0	86	2	JT0489	homeotic protein Z
21	92	100.0	86	2	S08303	homeotic protein H
22	92	100.0	87	2	S00589	homeotic protein H
23	92	100.0	88	2	A03317	homeotic protein M
24	92	100.0	96	2	S08639	homeotic protein z
25	92	100.0	96	2	A05266	homeotic protein H
26	92	100.0	97	2	C27176	homeotic protein H
27	92	100.0	97	2	A24779	homeotic protein m
28	92	100.0	103	2	A32167	homeotic protein H
29	92	100.0	105	2	S47602	homeotic protein H
30	92	100.0	105	2	A27471	homeotic protein R
31	92	100.0	106	2	S36448	homeotic protein s
32	92	100.0	107	2	B61045	homeotic protein T
33	92	100.0	113	2	T10775	homeobox protein -
34	92	100.0	118	2	A24777	homeotic protein H
35	92	100.0	118	2	JT0273	homeotic protein H
36	92	100.0	118	2	B24777	homeotic protein M
37	92	100.0	119	2	A03314	homeotic protein m
38	92	100.0	138	2	S20087	homeotic protein b
39	92	100.0	148	2	PC4071	homeobox A5 protei
40	92	100.0	153	1	WJHU3C	homeotic protein H
41	92	100.0	153	1	WJMSX6	homeotic protein H
42	92	100.0	158	2	A27348	homeotic protein H
43	92	100.0	209	2	A43553	homeotic protein H
44	92	100.0	217	1	WJHU2C	homeotic protein H
45	92	100.0	217	1	WJMSX2	homeotic protein H

ALIGNMENTS

RESULT 1
S57235
antennapedia protein (clone p1105) - fruit fly (Drosophila pseudoobscura)
(fragment)
C;Species: Drosophila pseudoobscura
C;Date: 10-Oct-1995 #sequence_revision 03-Nov-1995 #text_change 15-Oct-1999
C;Accession: S57235
R;Randazzo, F.M.; Seeger, M.A.; Huss, C.A.; Sweeney, M.A.; Cecil, J.K.; Kaufman,
T.C.
Genetics 133, 319-330, 1993
A;Title: Structural changes in the antennapedia complex of Drosophila
pseudoobscura.
A;Reference number: S57224
A;Accession: S57235
A;Molecule type: DNA
A;Residues: 1-33 <RAN>
A;Cross-references: EMBL:X77711
C;Genetics:
A;Gene: FlyBase:Antp
A;Cross-references: FlyBase:FBgn0012693

C;Superfamily: unassigned homeobox proteins; homeobox homology
C;Keywords: DNA binding; homeobox; nucleus; transcription regulation
F;1-22/Domain: homeobox homology (fragment) <HOX>

  Query Match 100.0%; Score 92; DB 2; Length 33;
  Best Local Similarity 100.0%; Pred. No. 1.4e-07;
  Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 RQIKIWFQNRRMKWKK 16
              ||||||||||||||||
Db          7 RQIKIWFQNRRMKWKK 22
```

Search completed: July 15, 2003, 09:55:56
Job time : 15 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: July 15, 2003, 09:48:36 ; Search time 23 Seconds
(without alignments)
28.853 Million cell updates/sec

Title: US-10-031-505-1
Perfect score: 92
Sequence: 1 RQIKIWFQNRRMKWKK 16

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 112892 seqs, 41476328 residues

Total number of hits satisfying chosen parameters: 112892

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_40:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	92	100.0	48	1	HXB6_XENLA	P31256 xenopus lae
2	92	100.0	49	1	HXA5_SHEEP	Q28599 ovis aries
3	92	100.0	71	1	HXA7_SHEEP	Q28600 ovis aries
4	92	100.0	71	1	HXC5_NOTVI	P31262 notophthalm
5	92	100.0	74	1	HM90_APIME	P15860 apis mellif
6	92	100.0	75	1	HMSA_SALSA	P09636 salmo salar
7	92	100.0	76	1	HXC4_RAT	P18865 rattus norv
8	92	100.0	78	1	HXA5_SALSA	P09637 salmo salar
9	92	100.0	80	1	HXA4_LINSA	P81192 lineus sang
10	92	100.0	81	1	HX5L_BRARE	P09013 brachydanio
11	92	100.0	82	1	HXB5_CHICK	P14838 gallus gall
12	92	100.0	84	1	HXB6_CHICK	P14839 gallus gall
13	92	100.0	86	1	SCR_APIME	P15859 apis mellif
14	92	100.0	87	1	HXC5_XENLA	P09020 xenopus lae
15	92	100.0	93	1	HXB8_PIG	P09078 sus scrofa
16	92	100.0	96	1	HXC6_BRARE	P15862 brachydanio
17	92	100.0	105	1	HXA7_RAT	P09634 rattus norv

18	92	100.0	105	1	HXB4_BRARE	P22574	brachydanio
19	92	100.0	112	1	HXB7_RAT	P18864	rattus norv
20	92	100.0	148	1	HXA5_AMBME	P50208	ambystoma m
21	92	100.0	153	1	HXC6_SHEEP	P49925	ovis aries
22	92	100.0	208	1	HXA7_HETFR	Q9ia25	heterodontu
23	92	100.0	209	1	HXA7_XENLA	P09071	xenopus lae
24	92	100.0	217	1	HXB7_BOVIN	Q9tt89	bos taurus
25	92	100.0	217	1	HXB7_HUMAN	P09629	homo sapien
26	92	100.0	217	1	HXB7_MOUSE	P09024	mus musculu
27	92	100.0	220	1	HB7A_XENLA	Q91771	xenopus lae
28	92	100.0	220	1	HB7B_XENLA	P04476	xenopus lae
29	92	100.0	222	1	HXC5_HUMAN	Q00444	homo sapien
30	92	100.0	222	1	HXC5_MOUSE	P32043	mus musculu
31	92	100.0	224	1	HXB6_HUMAN	P17509	homo sapien
32	92	100.0	224	1	HXB6_MOUSE	P09023	mus musculu
33	92	100.0	225	1	HXA7_MORSA	Q9pwd4	morone saxa
34	92	100.0	228	1	HXB6_BRARE	P15861	brachydanio
35	92	100.0	229	1	HXA6_HETFR	Q9ia24	heterodontu
36	92	100.0	229	1	HXA7_MOUSE	P02830	mus musculu
37	92	100.0	230	1	HXA7_HUMAN	P31268	homo sapien
38	92	100.0	230	1	HXB5_XENLA	P09019	xenopus lae
39	92	100.0	232	1	HXA6_MOUSE	P09092	mus musculu
40	92	100.0	232	1	HXB4_XENLA	P09070	xenopus lae
41	92	100.0	232	1	HXC5_BRARE	P09074	brachydanio
42	92	100.0	233	1	HXA5_RAT	P52949	rattus norv
43	92	100.0	233	1	HXA6_HUMAN	P31267	homo sapien
44	92	100.0	234	1	HXC6_NOTVI	P14858	notophthalm
45	92	100.0	234	1	HXC6_XENLA	P02832	xenopus lae

ALIGNMENTS

```
RESULT 1
HXB6_XENLA
ID   HXB6_XENLA     STANDARD;      PRT;    48 AA.
AC   P31256;
DT   01-JUL-1993 (Rel. 26, Created)
DT   01-JUL-1993 (Rel. 26, Last sequence update)
DT   15-JUN-2002 (Rel. 41, Last annotation update)
DE   Homeobox protein Hox-B6 (XlHox-2.2) (Fragment).
GN   HOXB6 OR XLHOX-2.2.
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93043517; PubMed=1384809;
RA   Leroy P., de Robertis E.M.;
RT   "Effects of lithium chloride and retinoic acid on the expression of
RT   genes from the Xenopus laevis Hox 2 complex.";
RL   Dev. Dyn. 194:21-32(1992).
CC   -!- FUNCTION: SEQUENCE-SPECIFIC TRANSCRIPTION FACTOR WHICH IS PART OF
CC       A DEVELOPMENTAL REGULATORY SYSTEM THAT PROVIDES CELLS WITH
CC       SPECIFIC POSITIONAL IDENTITIES ON THE ANTERIOR-POSTERIOR AXIS.
```

```
CC   -!- SUBCELLULAR LOCATION: Nuclear.
CC   -!- SIMILARITY: BELONGS TO THE ANTP HOMEOBOX FAMILY.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; M91587; AAA49750.1; -.
DR   InterPro; IPR001827; Antennapedia.
DR   InterPro; IPR001356; Homeobox.
DR   Pfam; PF00046; homeobox; 1.
DR   ProDom; PD000010; Homeobox; 1.
DR   SMART; SM00389; HOX; 1.
DR   PROSITE; PS00027; HOMEOBOX_1; 1.
DR   PROSITE; PS00032; ANTENNAPEDIA; PARTIAL.
DR   PROSITE; PS50071; HOMEOBOX_2; 1.
KW   Homeobox; DNA-binding; Developmental protein; Nuclear protein;
KW   Transcription regulation.
FT   NON_TER       1      1
FT   DNA_BIND     <1     29       HOMEOBOX.
SQ   SEQUENCE   48 AA;  5716 MW;  BC39E36822EDDD2A CRC64;

  Query Match             100.0%;  Score 92;  DB 1;  Length 48;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-08;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 RQIKIWFQNRRMKWKK 16
              ||||||||||||||||
Db         12 RQIKIWFQNRRMKWKK 27


Search completed: July 15, 2003, 09:54:11
Job time : 24 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: July 15, 2003, 09:49:26 ; Search time 76 Seconds
(without alignments)
43.378 Million cell updates/sec

Title: US-10-031-505-1
Perfect score: 92
Sequence: 1 RQIKIWFQNRRMKWKK 16

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 671580 seqs, 206047115 residues

Total number of hits satisfying chosen parameters: 671580

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_21:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description

1	92	100.0	39	13	O57368	O57368 brachydanio
2	92	100.0	43	13	O57359	O57359 brachydanio
3	92	100.0	46	13	Q9PVR9	Q9pvr9 oryzias lat
4	92	100.0	51	5	Q26407	Q26407 ctenodrilus
5	92	100.0	51	5	Q23743	Q23743 ctenodrilus
6	92	100.0	51	5	Q27413	Q27413 ctenodrilus
7	92	100.0	57	13	Q9PVR8	Q9pvr8 oryzias lat
8	92	100.0	58	5	Q9Y188	Q9y188 priapulus c
9	92	100.0	58	5	Q25208	Q25208 junonia coe
10	92	100.0	58	13	O57362	O57362 brachydanio
11	92	100.0	59	5	Q8WRM9	Q8wrm9 lithobius a
12	92	100.0	59	5	Q9NB42	Q9nb42 anopheles g
13	92	100.0	59	13	Q9PVR5	Q9pvr5 oryzias lat
14	92	100.0	60	5	O77139	O77139 archegozete
15	92	100.0	60	5	O77143	O77143 archegozete
16	92	100.0	60	13	Q8QGL8	Q8qgl8 petromyzon
17	92	100.0	60	13	Q8QGL7	Q8qgl7 petromyzon
18	92	100.0	60	13	Q8QGL6	Q8qgl6 petromyzon
19	92	100.0	60	13	Q8QGL5	Q8qgl5 petromyzon
20	92	100.0	60	13	Q8QGL3	Q8qgl3 petromyzon
21	92	100.0	60	13	Q8QGL2	Q8qgl2 petromyzon
22	92	100.0	61	5	Q27910	Q27910 polyandroca
23	92	100.0	63	5	O77138	O77138 archegozete
24	92	100.0	66	13	O57356	O57356 brachydanio
25	92	100.0	69	5	Q9U9T4	Q9u9t4 nereis vire
26	92	100.0	69	5	Q9BMF7	Q9bmf7 haliotis as
27	92	100.0	70	5	Q967W5	Q967w5 folsomia ca
28	92	100.0	71	13	Q9PVS3	Q9pvs3 oryzias lat
29	92	100.0	71	13	Q9PVS1	Q9pvs1 oryzias lat
30	92	100.0	73	5	Q9Y186	Q9y186 priapulus c
31	92	100.0	74	13	O57367	O57367 brachydanio
32	92	100.0	75	5	Q25209	Q25209 junonia coe
33	92	100.0	75	13	Q9PVR6	Q9pvr6 oryzias lat
34	92	100.0	76	5	O44257	O44257 ethmostigmu
35	92	100.0	77	5	O44260	O44260 ethmostigmu
36	92	100.0	77	5	Q9U9Z4	Q9u9z4 lingula ung
37	92	100.0	77	5	Q9Y187	Q9y187 priapulus c
38	92	100.0	79	5	Q9U9T9	Q9u9t9 nereis vire
39	92	100.0	79	5	Q967V2	Q967v2 lithobius f
40	92	100.0	80	5	Q05008	Q05008 artemia san
41	92	100.0	81	5	Q17142	Q17142 branchiosto
42	92	100.0	81	5	Q9BN27	Q9bn27 porcellio s
43	92	100.0	81	5	P91769	P91769 manduca sex
44	92	100.0	81	13	Q9PVR7	Q9pvr7 oryzias lat
45	92	100.0	82	5	Q24758	Q24758 drosophila

ALIGNMENTS

RESULT 1
O57368
ID   O57368   PRELIMINARY;   PRT;   39 AA.
AC   O57368;
DT   01-JUN-1998 (TrEMBLrel. 06, Created)
DT   01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
DT   01-MAR-2002 (TrEMBLrel. 20, Last annotation update)

```
DE   Hoxc5 protein (Fragment).
GN   HOXC5A OR HOXC5.
OS   Brachydanio rerio (Zebrafish) (Zebra danio).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC   Cyprinidae; Danio.
OX   NCBI_TaxID=7955;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Prince V.E., Joly L., Ekker M., Ho R.K.;
RT   "Zebrafish hox genes: genomic organization and modified colinear
RT   expression patterns in the trunk.";
RL   Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: NUCLEAR (BY SIMILARITY).
DR   EMBL; Y14539; CAA74874.1; -.
DR   ZFIN; ZDB-GENE-980526-533; hoxc5a.
DR   InterPro; IPR001356; Homeobox.
DR   Pfam; PF00046; homeobox; 1.
DR   PRINTS; PR00024; HOMEOBOX.
DR   ProDom; PD000010; Homeobox; 1.
DR   SMART; SM00389; HOX; 1.
DR   PROSITE; PS00027; HOMEOBOX_1; 1.
DR   PROSITE; PS50071; HOMEOBOX_2; 1.
KW   DNA-binding; Homeobox; Nuclear protein.
FT   NON_TER       1      1
SQ   SEQUENCE   39 AA;  4827 MW;  592A0FEC12E58860 CRC64;

  Query Match             100.0%;  Score 92;  DB 13;  Length 39;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-08;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 RQIKIWFQNRRMKWKK 16
              ||||||||||||||||
Db         14 RQIKIWFQNRRMKWKK 29


Search completed: July 15, 2003, 09:55:35
Job time : 77 secs
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